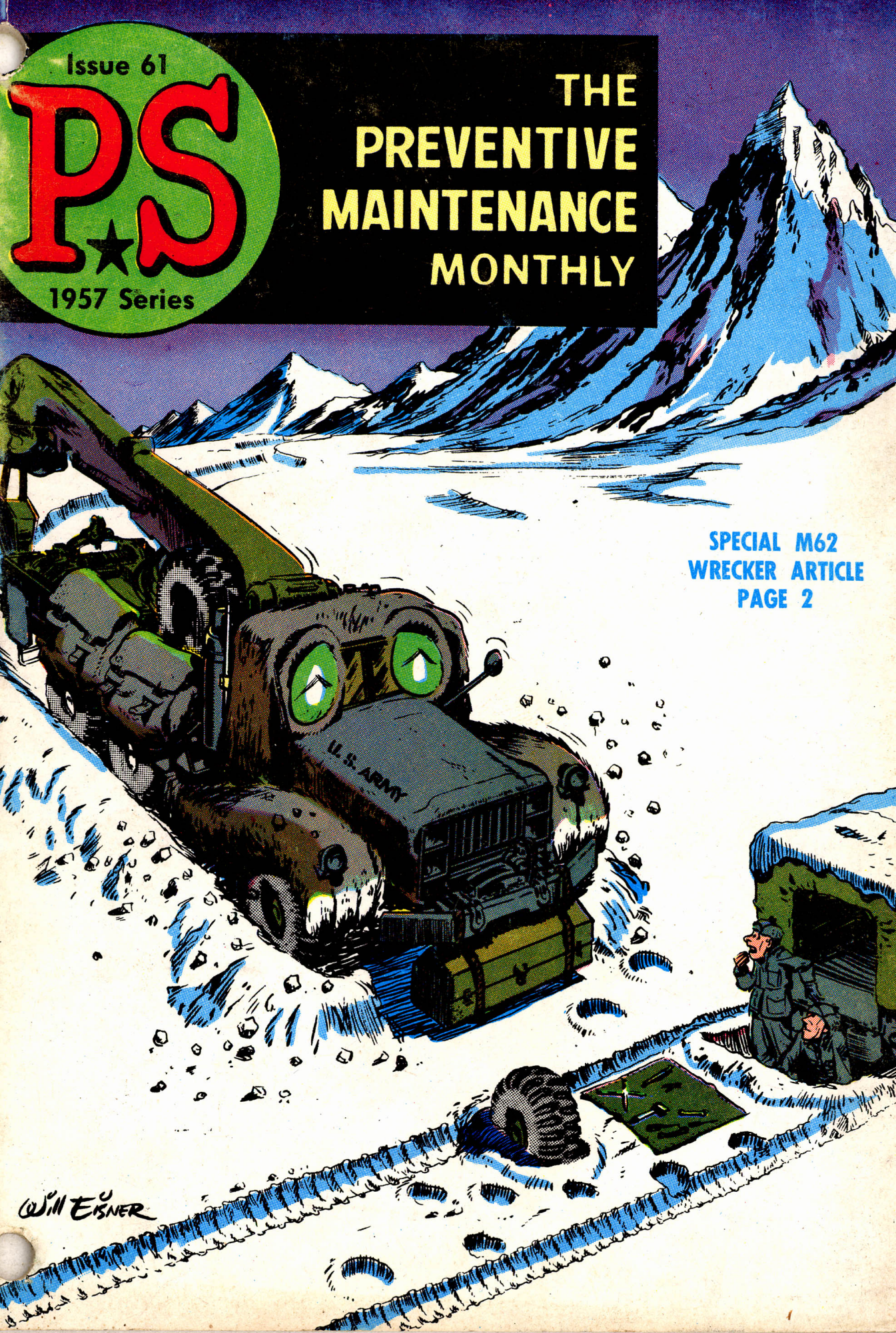
Issue 61

# PS

1957 Series

# THE PREVENTIVE MAINTENANCE MONTHLY




SPECIAL M62 WRECKER ARTICLE PAGE 2

Dear Half-Mast,

Every so often something happens in the life of an inspector to make the whole world seem a bit brighter. It's happened to me.

I've just got back from an inspection, and guess what? Those were some of the finest vehicles I've seen. Here's why: Less emphasis on spit-and-polish and more on Preventive Maintenance.

We all know that spit-and-polish has been around this Army for a long time. Every commander wants to have his outfit look better and sharper than the next.

It's got its good points: It boosts a guy's morale to have a gleaming vehicle under him. But, it's too bad that sometimes maintenance takes a back seat to spit-and-polish, and a lot of shiny equipment is worthless so far as use is concerned.

I'm glad to say this has ended—on this post, anyway. Our commanders have this policy: Do your maintenance first and worry about spit-and-polish later.

We as inspectors have been instructed to keep our eyes open for poor maintenance and gig any outfit heavy if we find it. In other words—we're not being blinded by spit-and-polish any more.

I've got just one bit of advice to pass along. Here 'tis: If any of your buddies are "maintaining" their equipment for nothing but spit-and-polish instead of like their TM's say, better wise 'em up fast. Sooner or later they'll get it in the end—probably sooner.

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# CUT THIS "SPIT and POLISH"

It's coming to the time when the only thing that counts on inspections is good down-to-earth Preventive Maintenance. If you'll follow your equipment's TM to the letter and leave the spit-and-polish for later, you'll be OK.

And you'll be sure to keep your equipment the world's best.

Inspector W.J.D.

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PS wants your ideas and contributions, and is glad to answer your questions. Just write to: **Sgt Half-Mast, PS, Raritan Arsenal, Metuchen, New Jersey.** Names and addresses are kept in confidence.

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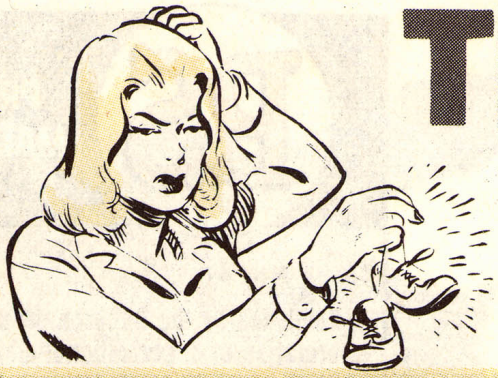
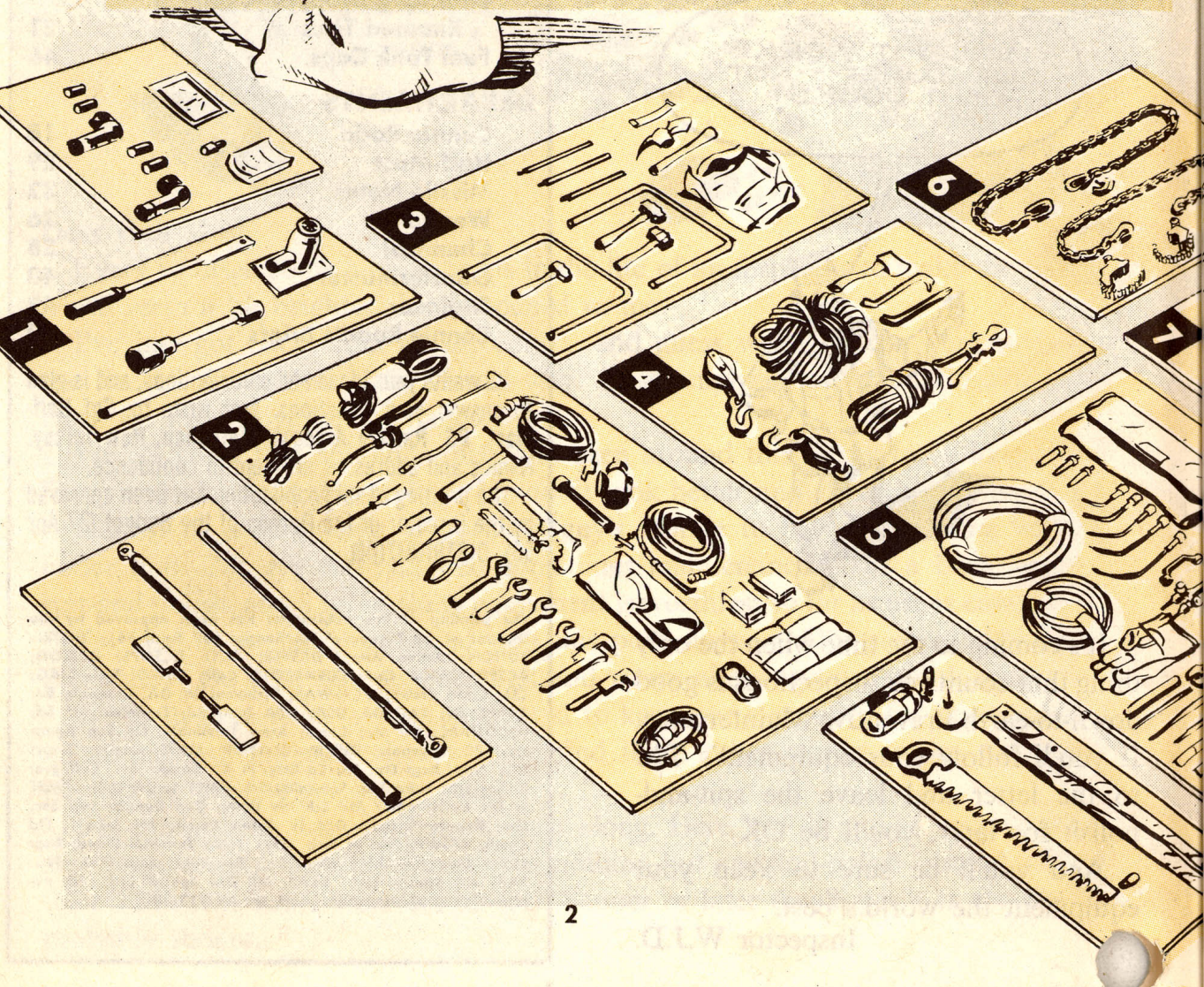


# The Low M62

That G744 5-ton wrecker of yours has plenty of bucks worth of equipment stashed with her. To sort of help you tack the proper name to those items and give you an idea of how they're stowed in your wrecker, here's a handy little reference you can use.

The names and stock numbers of the items are the latest dope. So, although they may look different from the names and numbers in your ORD 7 SNL G 744, don't worry—they came straight from the newest supply manuals.

For easy-sakes the following pages show the wrecker's compartments numbered for easy identification.



# The Low down On Your M62 WRECKER'S OVM

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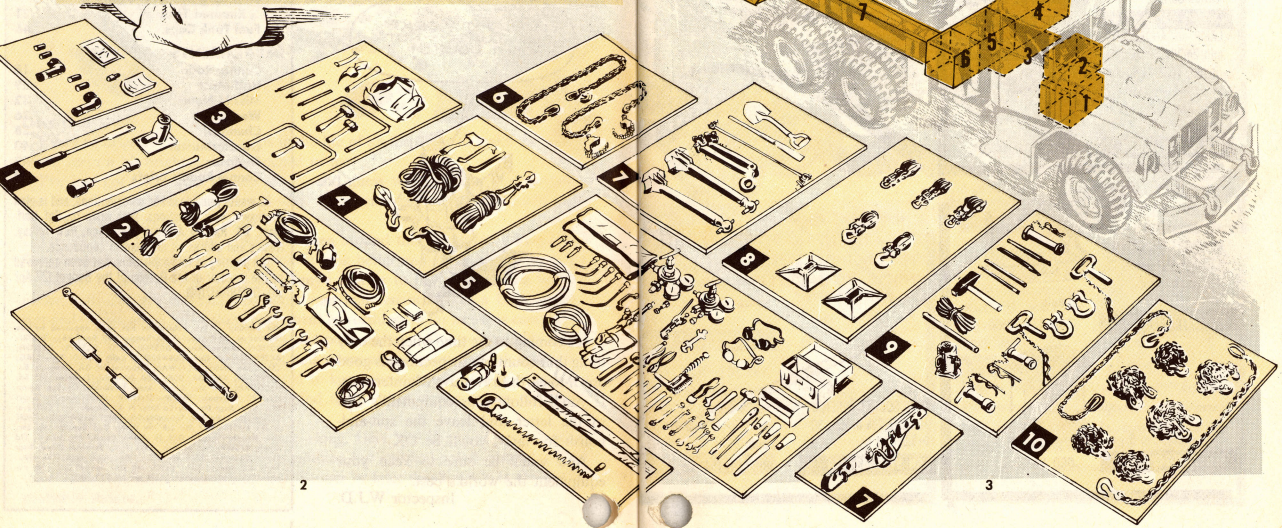
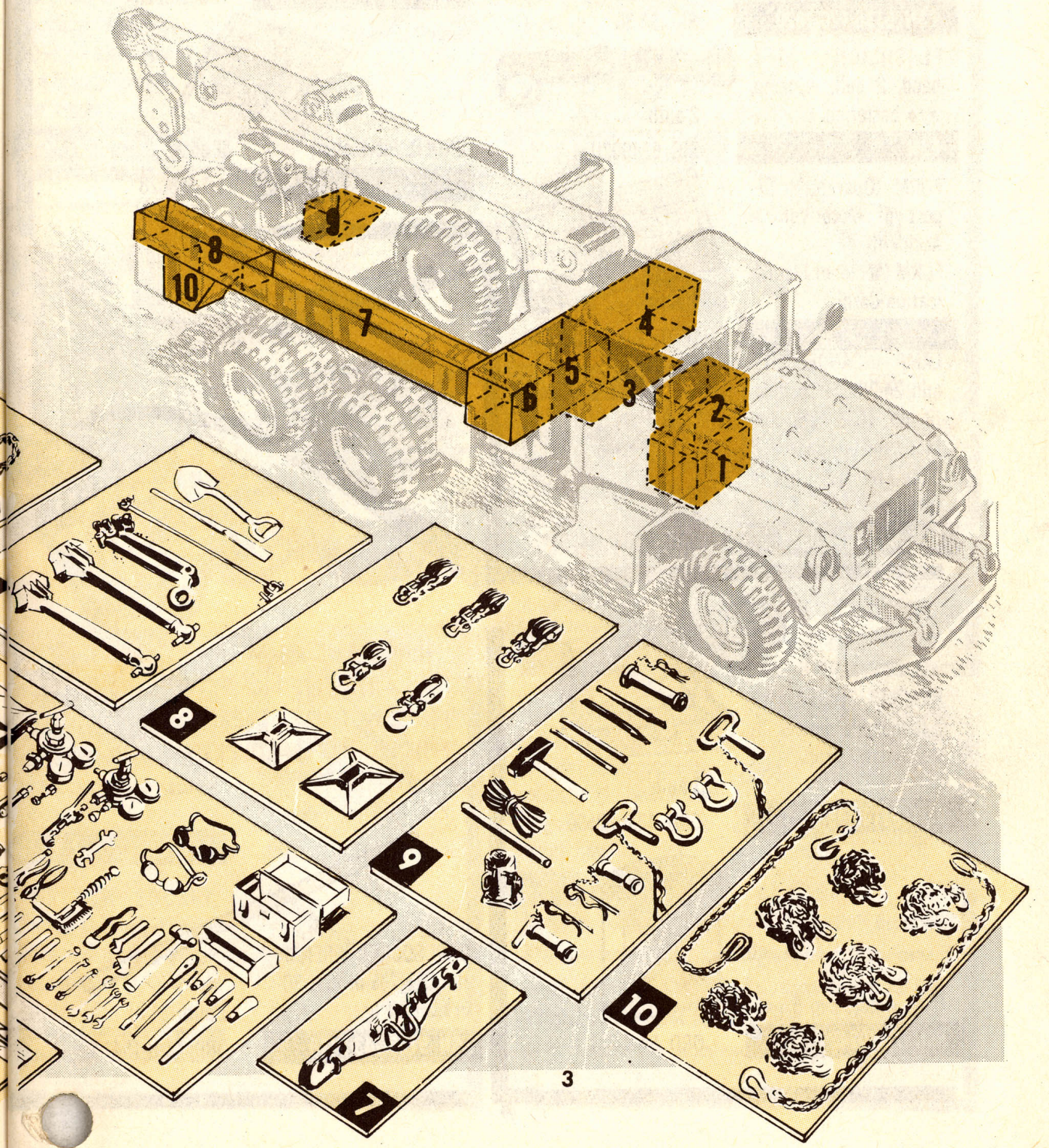
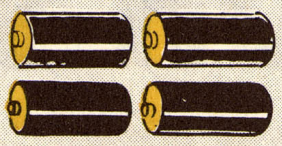


# down On Your
# WRECKER'S OVM



## THE OVM ITEMS YOU'LL STORE IN THE GLOVE COMPARTMENT OF THE WRECKER ARE THESE—

BATTERY DRY, single voltage, cylindrical; 1.5 volts; $1^5/_{16}$ in. dia; $2^3/_8$ in. h, flat surface; MIL type BA-30; Spec MIL-B-18B.



4 auth

**FSN 6135-120-1020**

SIG 3A-30

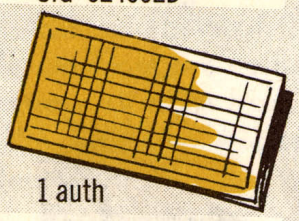
FLASHLIGHT, elec, hand, 2 cell, w/lamp, w/o batteries.

2 auth

**FSN**

SIG 6Z4002D

FORM (Operator's Report of Motor-Vehicle Accident);
FORM (Accident-Identification Card).



1 auth

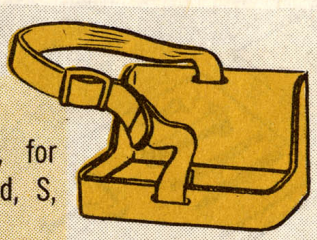
**SF 91 DD FORM 518**

LAMP INCANDESCENT, min, 24-28v, 32 cp, dble-fil, no. 1638 (sgle-contact cand-bay-base, S-8 bulb, two C-2R fils in series).

1 auth

**FSN 6240-044-6914**

ORD H104-0446914



BRACKET, DRUM, for inflammable liquid, S, welded, w/strap.

1 auth

**FSN 8110-473-6331**

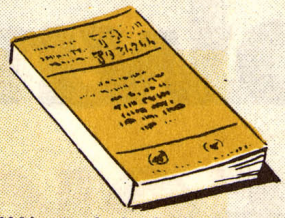
ORD 42-B-22590

1 auth

CAN, water, cap 5 gal.

**FSN 7240-242-6153**

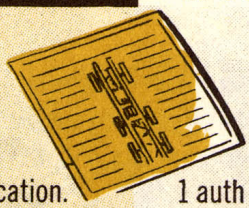
ORD 64-C-281



MANUAL, technical.

1 auth

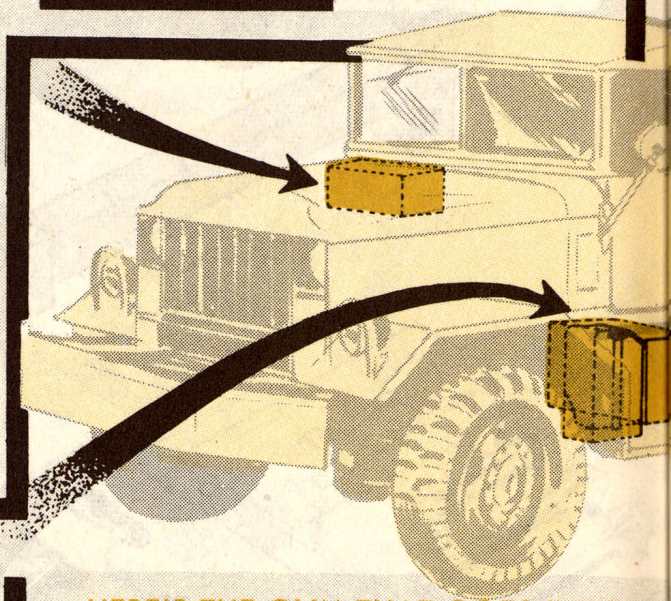
**TM 9-8028**



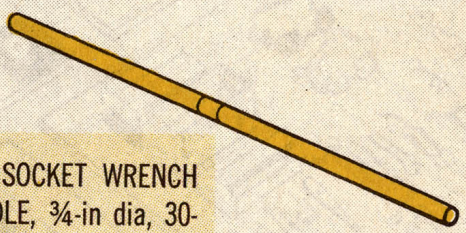
ORDER, lubrication.

1 auth

**LO 9-8028**



## HERE'S THE OVM THAT GOES INTO COMPARTMENT NO. 1, WHICH YOU'LL FIND ON THE DRIVER'S SIDE OF THE VEHICLE, JUST ABOVE THE RUNNING BOARD:



BAR SOCKET WRENCH HANDLE, ¾-in dia, 30-in over-all lg.

1 auth

**FSN 5120-243-2419**

ORD 41-H-1541-10

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4 auth

**FSN 6135-120-1020** SIG 3A-30

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2 auth

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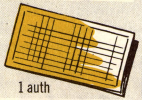

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1 auth

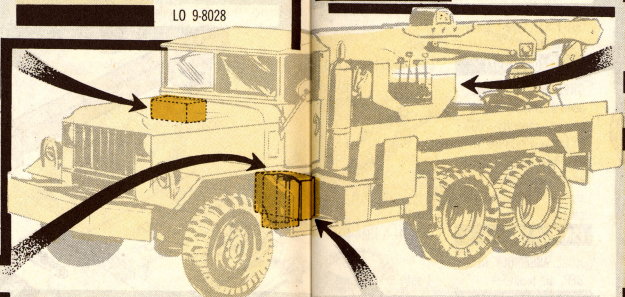
**FSN 6240-044-6914** ORD H104-0446914

MANUAL, technical. 1 auth

**TM 9-8028**

ORDER, lubrication. 1 auth

**LO 9-8028**



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1 auth

**FSN 8110-473-6331** ORD 42-B-22590

1 auth

CAN, water, cap 5 gal.

**FSN 7240-242-6153** ORD 64-C-281

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BAR SOCKET WRENCH HANDLE, ¾-in dia, 30-in over-all lg.

1 auth

**FSN 5120-243-2419** ORD 41-H-1541-10



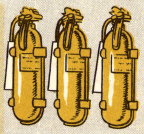
## HERE'S OVM STOWED IN, NEAR AND ON THE CRANE OPERATOR'S CAB. THIS'LL SHOW YOU WHERE IT GOES:

BRACKET, FIRE EXTINGUISHER, designed for carbon dioxide fire extinguisher; style no. 6, Ref Dwg Group 149; for vertical surface mtg; 2½ lb size; American La France Foamite Corp or equal.

3 auth

**FSN 4210-254-8978** ENG 58-1600.025.250

EXTINGUISHER, FIRE, CARBON DIOXIDE, charged; hand type; shatterable cylinder; permanent shutoff type valve, squeeze-grip control; 2½ lb capacity; MIL-E-468, type I—S. I. 4210-223-9909 and 4210-383-7128.



3 auth

**FSN 4210-223-9910** ENG 58-4276.200.025

OILER, HAND: push bottom, S, 8 oz cap, spout 4 in lg.

1 auth

**FSN 4930-272-7968** ORD 13-0-1530

HOLDER, oiler.

1 auth

**FSN** ORD H002-0103500

SAW, CROSSCUT, ONE-MAN, 54 in lg blade; 2 cutter and 1 raker tooth pattern, non-perforated; no special features; Fed GGG-S-64, type I, style A teeth.

1 auth

**FSN 5110-223-5349** ENG 41-6972.100.540

JACK, HYDRAULIC, HAND, self-contained, 8-ton cap, 11-in closed h, 23¾-in extended h, sgle pump, w/screw extn.

1 auth

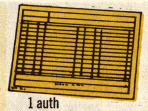
**FSN 5120-222-1310** ORD 41-J-73-7

WRENCH SOCKET, wheel stud nut, dble-hd, hex and sq, 1½-in hex openings, 13/16-in sq opng, 18⅜ in lg.

1 auth

**FSN 5120-316-9217** ORD 41-W-3838-40

FORM (envelope), DA Form 478, MWO and major unit assembly replacement record and organizational equipment file.



1 auth

DA FORM 478

**Note: DA Form 478, "MWO and Major Unit Assembly Replacement Record and Organizational Equipment File," is part of your OVM. But, according to AR 700-2300-1, you're not to carry it in your vehicle—it's to be kept in the maintenance shop files.**

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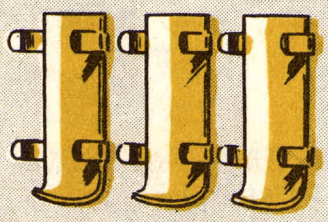

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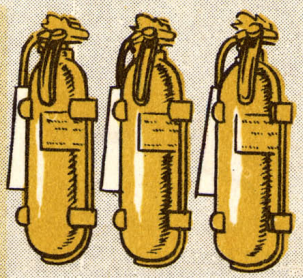

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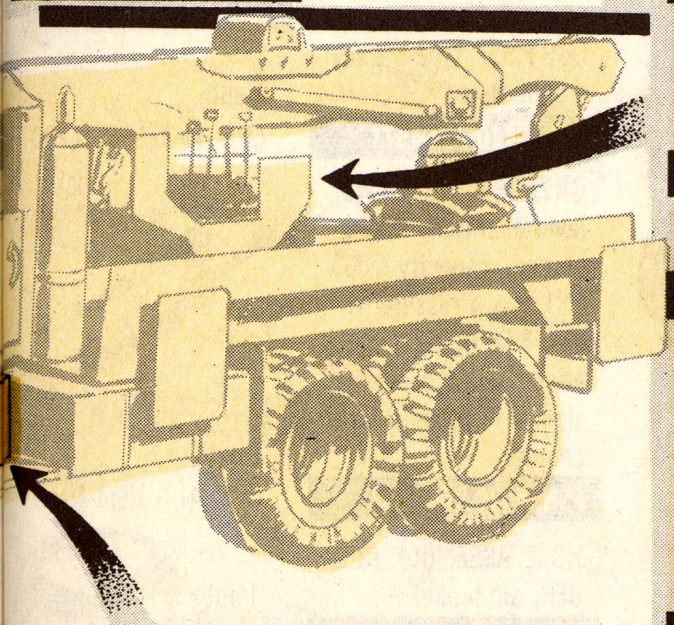

OILER, HAND: push bottom, S, 8 oz cap, spout 4 in lg.

1 auth

**FSN 4930-272-7968**

ORD 13-0-1530

HOLDER, oiler.

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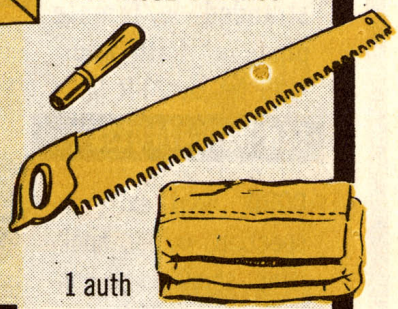
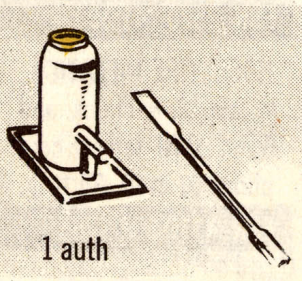


1 auth

**FSN 5110-223-5349**

ENG 41-6972.100.540

JACK, HYDRAULIC, HAND, self-contained, 8-ton cap, 11-in closed h, 23¾-in extended h, sgle pump, w/screw extn.

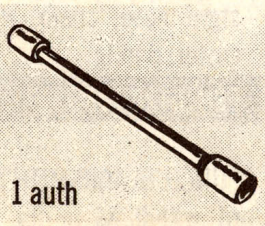


1 auth

**FSN 5120-222-1310**

ORD 41-J-73-7

WRENCH SOCKET, wheel stud nut, dble-hd, hex and sq, 1½-in hex openings, $^{13}/_{16}$-in sq opng, 18⅜ in lg.

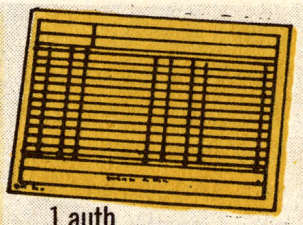


1 auth

**FSN 5120-316-9217**

ORD 41-W-3838-40

FORM (envelope), DA Form 478, MWO and major unit assembly replacement record and organizational equipment file.



1 auth

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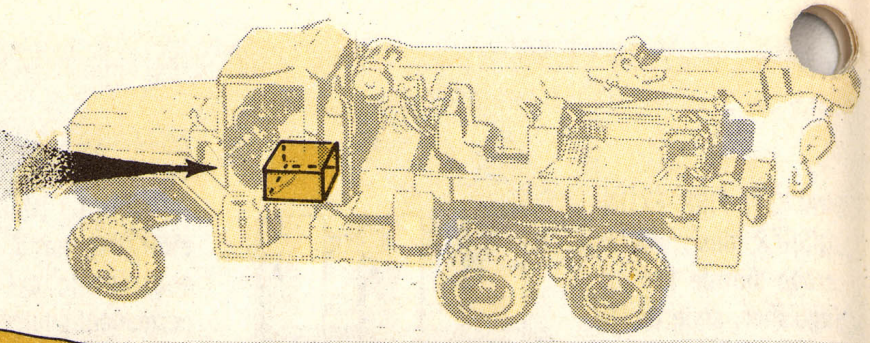
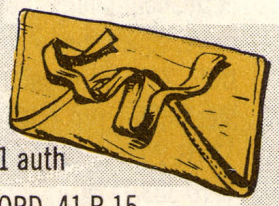
## THIS IS THE OVM THAT GOES IN COMPARTMENT NO. 2 WHICH IS UNDER THE DRIVER'S SEAT:



BAG, tool, empty, 20¼x 18¼ inch to top of flap, open.

**FSN**



1 auth

ORD 41-B-15

BLADE, hand, hacksaw: HSS, all hard type, 12-in nom lg. 24 points per in, 0.025 thk.

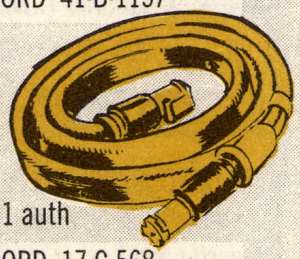
**FSN 5110-237-8106**

12 auth

ORD 41-B-1157

CABLE, extn, rubber covered, 2 conductor, stranded w/female plugs at both ends, AWG No. 1, 20-ft lg.

**FSN 4910-474-9135**

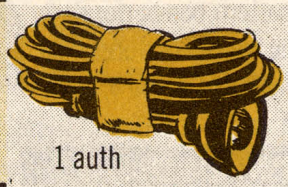


1 auth

ORD 17-C-568

CORD, light extn, inspection, w/hdl, hook, lamp shield, sgle-contact socket 25-ft lg.

**FSN 6230-274-4019**



1 auth

ORD 17-C-35079-47

CORD, light extn, inspection w/socket and plug, sgle-contact, 25-ft lg (Used with cord, extn, 17-C-35079-47 for added length).

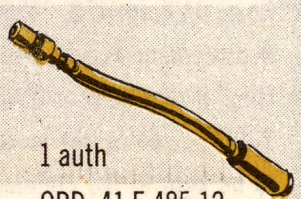
**FSN 6230-548-0387**

1 auth

ORD 17-C-35079-40

EXTENSION ADAPTER, lubr gun, flex hose, sleeve type, hyd to hyd, 12 in lg.

**FSN 4930-387-9570**

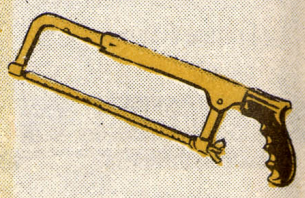


1 auth

ORD 41-E-485-12

FRAME, HAND HACKSAW, adjustable for lg; 8, 10, 12 in blade capacity; 3 in min to 3⅝ in max depth of throat; open pistol grip handle; no special features; Fed GGG-F-671, type I, class I, style B.

**FSN 5110-223-4971**

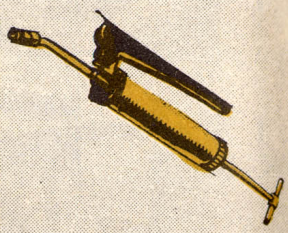


1 auth

ENG 41-3714.300.200

GREASE GUN, HAND, lever-operated, spring-primed, capacity 7000 PSI max. Pressure, w/ one 6-in lg rigid bent angle tube type extension, w/hydraulic type coupler.

**FSN 4930-223-3391**



1 auth

ORD 41-G-1344-40

HOSE, ASSEMBLY, RUBBER, air brake.

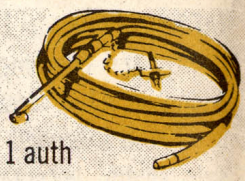
**FSN 2530-741-3037**

1 auth

ORD G744-7413037

HOSE, TIRE INFLATION, w/air blow chuck and ½ in 20 NF female coupling, ¼ in ID, 30 ft lg.

**FSN 4310-092-9265**

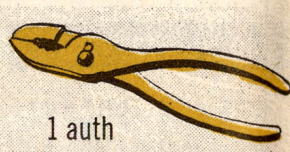


1 auth

ORD 33-H-986-224

PLIERS, SLIP JOINT, stght nose, comb, w/ cutter, 8 in lg.

**FSN 5120-223-7397**

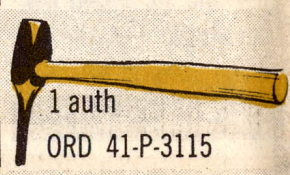


1 auth

ORD 41-P-1652

PUNCH, BLACKSMITH'S, rd, w/hdl, ¼ in dia.

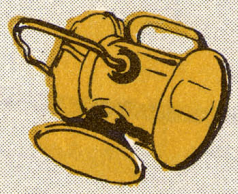
**FSN 5120-197-9473**



1 auth

ORD 41-P-3115

TERN, ELECTRIC, 3½ in dia by 6½ in h o/a; incl 2 JCENS lamps LM-202/U;JCENS battery BA-200/U required, not furnished; steel case; plastic top lens 3 9/32 in dia; plastictic front lens 4½ in dia; 3 position slide sw; adj steel wire handle; beam not adj; incl 2 spare bulbs, steel wire guard around top.



1 auth

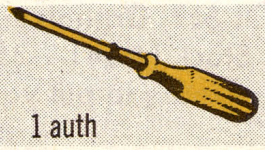
**FSN 6230-498-9408** SIG 6Z6914-290

SCREWDRIVER, FLAT TIP, wood hdl, flared tip, ¼ in w, 4 in lg blade.

1 auth

**FSN 5120-277-9491** ORD 41-S-1102

SCREWDRIVER, CROSS TIP, Phillips No. 2 tip, wood hdl, 4 in lg blade.



1 auth

**FSN 5120-293-3347** ORD 41-S-1638

SCREWDRIVER, FLAT TIP, mtl w/wood inserts hdl, flared tip, ⅜ in w, 6 in lg blade.

1 auth

**FSN 5120-227-7349** ORD 41-S-1076

SCREWDRIVER, CROSS TIP, Phillips No. 3 tip, wood hdl, 6 in lg blade.

1 auth

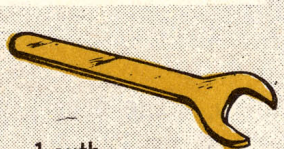
**FSN 5120-293-3346** ORD 41-S-1640

TUBE, flex nozzle, cam type.

1 auth

**FSN** ORD 42-T-13600

WRENCH, SINGLE OPEN END, 15 deg angle, carb-S, 1¾ in opng, 11½ in lg.



1 auth

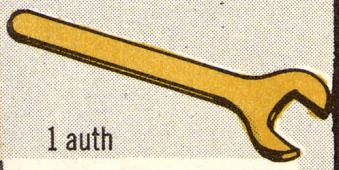
**FSN 5120-357-8605** ORD 41-W-1419-178

WRENCH, ADJUSTABLE, AUTOMOBILE, 3⅝ in jaw opng, 15 in lg.

1 auth

**FSN 5120-264-3793** ORD 41-W-450

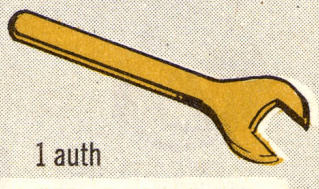
WRENCH, SINGLE OPEN END, 15 deg angle, carb-S, 1 11/16 in opng, 11½ in lg.



1 auth

**FSN 5120-357-8688** ORD 41-W-1577-710

WRENCH, SINGLE OPEN END, 15 deg angle, carb-S, 1 17/32 in opng, 11½ in lg.



1 auth

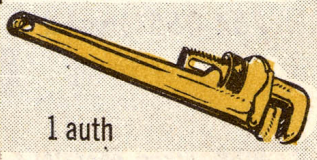
**FSN 5120-357-8603** ORD 41-W-1419-145

WRENCH, OPEN END, ADJUSTABLE, sgle-hd, 0 to 1 5/16 in jaw opng, 12 in lg.

1 auth

**FSN 5120-264-3796** ORD 41-W-488

WRENCH, PIPE, adj jaw, 1 to 2 in pipe cap, 18 in lg.



1 auth

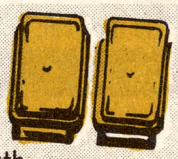
**FSN 5120-277-1461** ORD 41-W-1664

WRENCH, PLUG, STRAIGHT BAR, sq ½ in plug, 2½ in lg.

1 auth

**FSN 5120-708-3302** ORD 41-W-1962-100

REFLECTOR KIT, HIGHWAY WARNING, Miro Flex Co model no. 20 or equal;

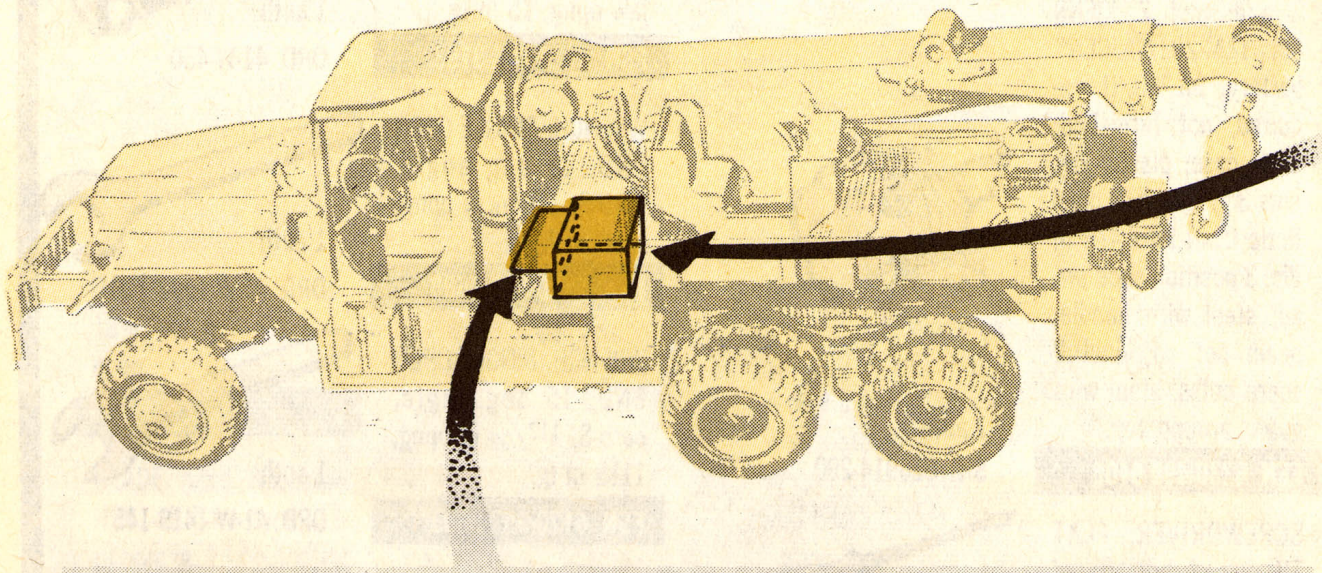


2 auth

c/o 7 items:

| | |
|---|---|
| Carrier | 2 auth |
| Flags | 4 auth |
| Instruction decal | 2 auth |
| Reflectors, w/steel frame and base | 6 auth |

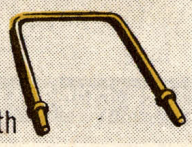
**FSN 9905-449-7161** ENG 42-7624.600.300



## COMPARTMENT NO. 3 IS THE ONE JUST TO THE REAR OF THE DRIVER'S CAB—THE COMPARTMENT THAT RUNS ALMOST THE LENGTH OF THE CAB. THIS IS THE OVM THAT GOES THERE—

In compartment 3 in the place that your TOOL SET, Organizational Maintenance 2d echelon, set No. 9 (Ground anchor) (Ord Stock No. 41-T-3545-18; FSN 4910-754-0651) used to go, you now have plenty of room to put your packs.

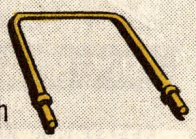
BOW, crane operator's cab top, front.



1 auth

**FSN** MFR'S AWR-HCF1394A

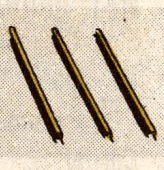
BOW, crane operator's cab top rear.



1 auth

**FSN** MFR'S AWR-HCF1395A

BRACE, crane operator's cab top bow.



3 auth

**FSN** MFR'S AWR-HCF1681A

HAMMER, HAND, sledge, blacksmith's, dble face, 20 lb.

1 auth

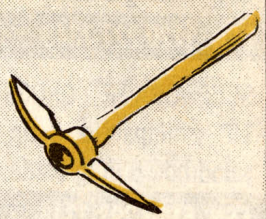
**FSN 5120-230-7843** ORD 41-S-3733

STRAP, canvas roll stowage.

2 auth

**FSN** ORD PART NO 7355733

MATTOCK, pick type; Fed GGG-H-506, type II, class F; w/handle; 5 lb size; no special features.



1 auth

**FSN 5120-243-2394** ENG 41-5439.700.050

PAULIN, crane operator's cab, top.

1 auth

**FSN** MRF'S AWR-HCF1786A

ON THE LEFT SIDE OF THE TRUCK, JUST IN BACK OF THE CAB (AND COMPARTMENT NO. 3,) YOU'LL FIND COMPARTMENT NO. 4. THE OVM YOU'LL KEEP IN THIS COMPARTMENT IS AS FOLLOWS:

AX, SINGLE BIT, 4¾ in w/cutting edge; 4 lb wt of head; 36 in lg handle; not rated nonsparking or nonmagnetic; no special features; Fed GGG-A-926,—type I.

**FSN 5110-222-0455**

1 auth

ENG 41-1187.550.400

BAR, PINCH, bent chisel and taper, 1 in dia, 36 in lg.

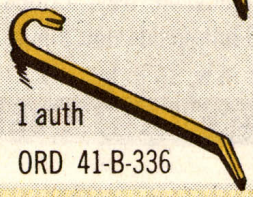
**FSN 5120-224-1384**

1 auth

ORD 41-B-284

BAR WRECKING, 36 in overall lg, ¾ in dia of stk.

**FSN 5120-242-0762**



1 auth

ORD 41-B-336

TOOL SET, Organizational Maintenance (2d echelon), set No. 4, block and tackle. Composed of (components may be requisitioned separately):

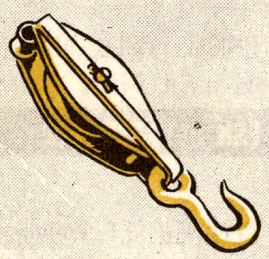
1 auth

**FSN 5108-754-0648**

TRANS 41-8225-30-070

BLOCK, TACKLE, centerpin, steel; .625 in dia; for use w/fiber-rope, 1-in max dia rope accommodated; spec. Eng-T-868-A, Type II, grade A, Class 1; fittings, 1 hook, loose side; shell pattern, oval; style, steel, 8-in nom lg; safe working load, 1,700 lb; sheave, 1, iron, 4.75 in O.D.

**FSN 3940-239-8774**

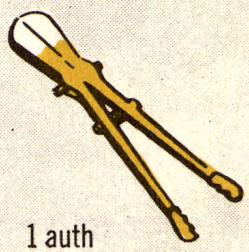


1 auth

TRANS 19-1566-91-164

CUTTER, BOLT, rigid hd, clipper-cut (close-cutting), ⅝ in bolt and ½ in rod cap, 36 in lg.

**FSN 5110-188-2524**



1 auth

ORD 41-C-2283

ROPE, MANILA, color natural, 3 strand, oil treated, Fed-T-R-601a, amend 2, 2½ in circum, 6.0 ft per lb, 5400 lb breaking-strength Grade A or B.

**FSN 4020-238-7734**

1 auth

QM 21-R-403

BLOCK, TACKLE, spec. Eng-T-868-A, Type II, grade A, class 2; Fittings, 1 hook, loose side; shell pattern, oval; style steel, 8-in nomlg; safe-working load, 2450 lb; sheaves, 2, iron, 4.75 in O.D.

**FSN 3940-239-8772**

1 auth

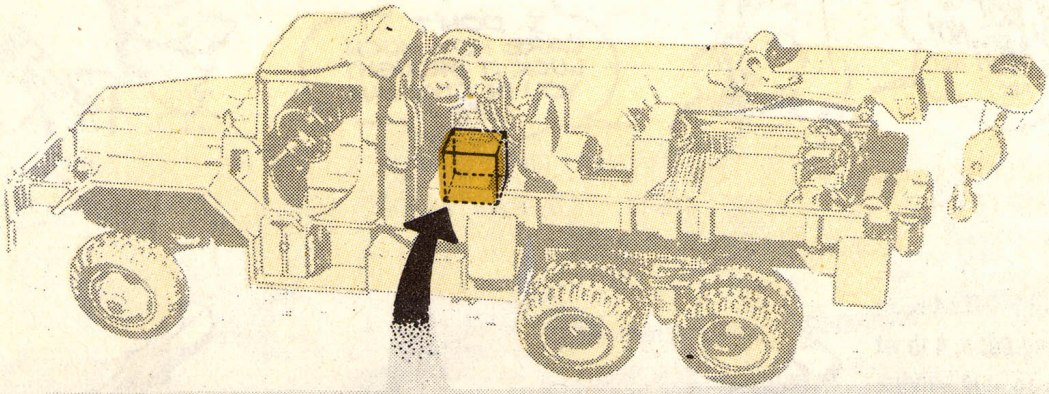
TRANS 19-1566-91-168

ROPE, MANILA, color natural, 3 strand, oil treated, Fed-T-R-601a, amend 2, 3 in circum, 3.71 ft per lb, 9,000 lb breaking strength Grade A.

**FSN 4020-234-8399**

1 auth

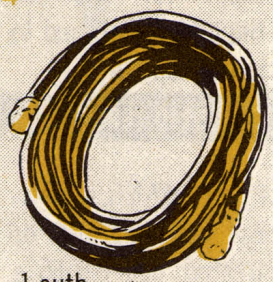
QM 21-R-420



## HERE'S THE OVM THAT'S STOWED IN COMPARTMENT NO. 5 (JUST TO THE RIGHT OF NO. 4

HOSE, rubber: gas, acetylene, braided, red w/ LH thd female connections on both ends attached by crimped br ferrules, $^{9}/_{16}$-18NF-3 thd $^{5}/_{16}$-in ID, 25-ft lg.

**FSN 4310-356-8566**



1 auth

ORD 33-H-402

HOSE, rubber: gas, oxygen braided, green, w/ RH thd female connections on both ends attached by crimped br ferrules, $^{9}/_{16}$-18NF-3 thd $^{5}/_{16}$-in ID, 25-ft lg.

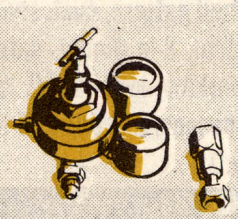
**FSN**

1 auth

ORD 33-H-452-25

REGULATOR, acetylene pressure w/adapter, 2 gages, 2½-in dials, 0 to 50 and 0 to 500 psi range.

**FSN 3432-449-7510**



1 auth

ORD 45-R-3502

REGULATOR, oxygen pressure w/adapter, 2 gages, 2½-in dials, 0 to 200 and 0 to 3000 psi range.

**FSN 6680-281-8193**

1 auth

ORD 45-R-3533

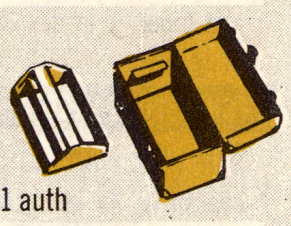
TOOL SET, welder's. Composed of (components may be requisitioned separately):

1 auth

**FSN 3432-754-0661**

ORD 41-T-3554-975

CHEST, TOOL, METAL, removable tray, formed S hdl, inside dim 7 in h, 7 in w, 16 in lg.



1 auth

**FSN 5140-652-8243**

ORD 41-C-853

CHISEL, DIAMOND POINT, HAND, ¼ in cut.

1 auth

**FSN 5110-186-7115**

ORD 41-C-1162

CHISEL, COLD, HAND, ½ in cut, 6 in lg.

1 auth

**FSN 5110-186-7107**

ORD 41-C-1106

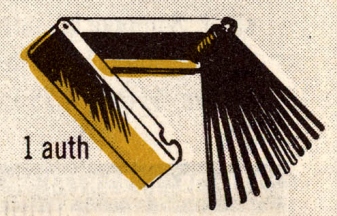
CHISEL, COLD, HAND, ¾-in cut, 7-in lg.

1 auth

**FSN 5110-236-3272**

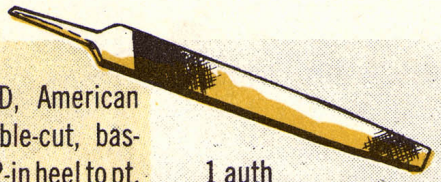
ORD 41-C-1120

CLEANER SET: Welding and cutter tips, 75 to 49 drill sizes, 12-in metal case.



1 auth

**FSN 3432-368-3634**

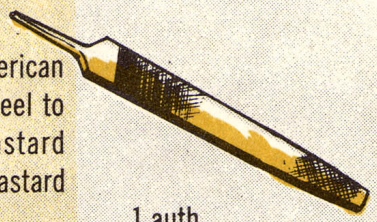


FILE, HAND, American patt, fl, dble-cut, bastard cut, 12-in heel to pt.

1 auth

**FSN 5110-234-6539**

ORD 41-F-863



FILE, HAND, American patt, mill, 12-in heel to pt, sgle-cut, bastard faces, sgle-cut, bastard edges.

1 auth

**FSN 5110-242-5386**

ORD 41-F-1158

FILE, HAND, American patt, rd, dble-cut, bastard cut, 12-in heel to pt,.

1 auth

**FSN 5110-234-6557**

ORD 41-F-1307

GLOVES, LEATHER, work type, men's, gauntlet cuff, cream or light gray, welder's type, size large, Fed-KK-G-470, type III.

1 auth

**FSN 8415-268-7859**

QM 37-G-2412-10

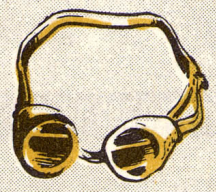
GOGGLES, INDUSTRIAL, w/single aperature, style no. 2, section A, Ref Dwg Group 171, plastic, opaque, ventilated; plastic lenses, clear, not polarized, special shape, style BB, section E, Ref Dwg Group 171; designed to be worn over personal spectacles; headband supported; w/o carrying case; w/o spare lenses; Fed-GG-G-531, type I, class I.

1 auth

**FSN 4240-288-9123**

Eng 37-4458.670.200

GOGGLES, INDUSTRIAL, w/eye cups, style no. 2, section B, Ref Dwg Group 171, plastic, not ventilated, adjustable leather nose bridge; glass filter lenses, CO-bs shade no. 5 w/1 glass cover lens, each aperature, rd shape, style A, section D, Ref Dwg Group 171, 50 mm dia; designed to be worn over personal spectacles; headband supported; w/o carrying case; w/o spare lenses; Willson Products, Inc. style no. CW60 or equal.



1 auth

**FSN 4240-270-3106**

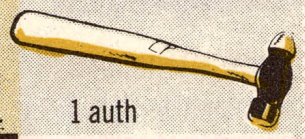
Eng 37-4458.660.110

HAMMER - BRUSH, WELDER'S, chisel hd, removable brush.

1 auth

**FSN 5120-240-7498**

ORD 41-H-885



HAMMER, HAND: machst, ball peen, 2 lb.

1 auth

**FSN 5120-224-4047**

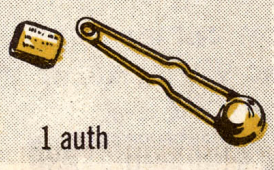
ORD 41-H-527

HANDLE, FILE, WOOD, 5½-in lg over-all, 1½-in dia.

3 auth

**FSN 5110-263-0341**

ORD 41-H-1115



IGNITER, FRICTION, oxygen-acetylene torch, revolving file, w/10 extra tips.

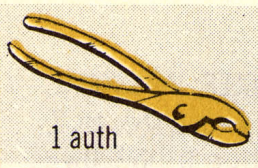
1 auth

**FSN 5120-190-5540**

ORD 41-I-50

PLIERS, SLIP JOINT, strgh nose, comb. w cutter, 10-in lg.

**FSN 5120-223-7398**



1 auth

ORD 41-P-1654

PUNCH, DRIVE PIN, lg taper, $^{3}_{16}$-in pt, 3-in taper lg.

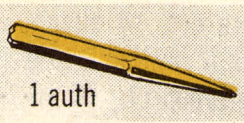
**FSN 5120-293-1408**

1 auth

ORD 41-P-3756

PUNCH, CENTER, SOLID, ⅜-in dia, 4½-in lg.

**FSN 5120-197-9488**



1 auth

ORD 41-P-3185

RULE, MULTIPLE FOLDING, metal, 3 ft extended lg, 6 sections, $^{1}_{16}$-in smallest unit of graduation for 2 graduated edges.

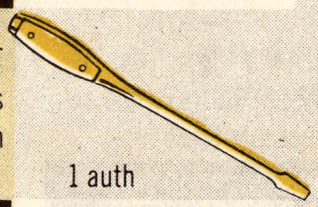
**FSN 5210-239-0489**

1 auth

ORD 41-R-2751

SCREWDRIVER, FLAT TIP, mtl w wood inserts hdl, flared tip, $^{7}_{16}$-in w, 10-in lg blade.

**FSN 5120-236-2092**



1 auth

ORD 41-S-1078

SCRIBER, MACHINIST'S, dble screwed pt style, 1 stght and 1 reg bent pt, 8 to 9-in lg over-all.

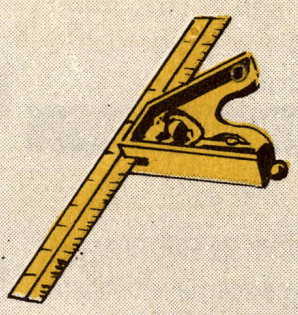
**FSN 5120-596-1543**

1 auth

ORD 41-S-2030

SQUARE, COMBINATION, 12-in lg grooved type blade, smallest unit of graduation for ea differently graduated edge $^{1}/_{64}$-in, $^{1}/_{32}$-in, ⅛-in, cast iron square and Miter head, w/ scriber and level.

**FSN 5210-221-2068**



1 auth

ORD 41-S-4547

WRENCH, BOX: dble-hd, 12 pt, ⅝- and ¾-in opngs.

**FSN 5120-224-3138**

1 auth

ORD 41-W-625

WRENCH, BOX, dble offset, dble-hd, 12 pt, 45 deg offset, ⅜ and $^{7}_{16}$ in openings, 5-in lg.

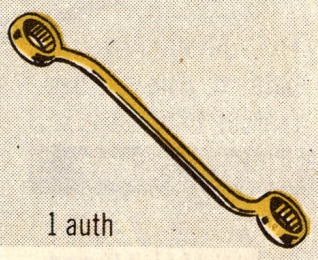
**FSN 5120-184-8679**

1 auth

ORD 41-W-620

WRENCH, BOX, dble offset, dble-hd, 12 pt, 45 deg offset, ½ and 9.16-in openings, 4¾-in lg over-all.

**FSN 5120-224-3154**

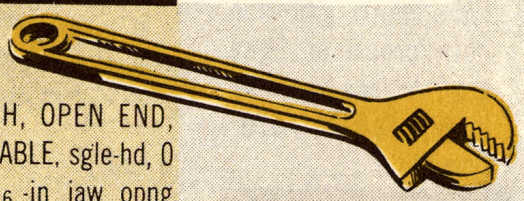


1 auth

ORD 41-W-622

WRENCH, OPEN END, ADJUSTABLE, sgle-hd, 0 to $1^{5}_{16}$-in jaw opng, 12-in lg.

**FSN 5120-264-3796**



1 auth

ORD 41-W-488

WRENCH, OPEN END, ADJUSTABLE, sgle end, $^{15}_{16}$-in jaw opng, 8-in lg.

**FSN 5120-240-5328**

1 auth

ORD 41-W-486

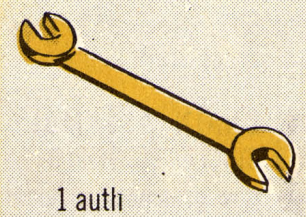
WRENCH, OPEN END, FIXED, 15 deg angle, dble end, spear-hd, alloy-S, ⅜ and $^{7}_{16}$-in openings.

**FSN 5120-277-2342**

1 auth

ORD 41-W-991

WRENCH, OPEN END, FIXED, 15 deg angle, dble-hd, spear-hd, alloy-S, ½ and $^{9}/_{16}$-in openings, $^{17}/_{64}$-in thk hd, 5½-in lg.

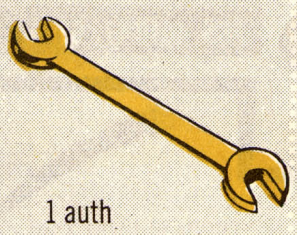


1 auth

**FSN 5120-187-7124**

ORD 41-W-1002-40

WRENCH, OPEN END, FIXED, 15 deg angle, dble end, spear-hd, alloy-S, ⅝ and $^{11}/_{16}$-in openings, 7-in over-all lg, $^{21}/_{64}$-in thk of hd.

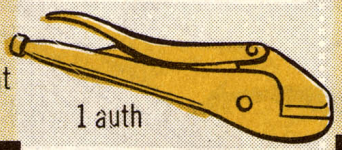


1 auth

**FSN 5120-277-8301**

ORD 41-W-1007-60

WRENCH, PLIER, stght jaw, 10-in lg.



1 auth

**FSN 5120-423-6727**

ORD 41-W-460

TORCH, oxy-acetylene, med duty welding and cutting, w wrench, cutting attachments, tips and bag. Composed of (components may be requisitioned separately): 1 auth

**FSN**

ORD 41-T-3812

CUTTING ATTACHMENT, welding torch: 75 deg angle head (for use w TORCH HANDLE, 3375-391-1220).

1 auth

**FSN**

TIP, OXYGEN ACETYLENE, WELDING, drill size 43.

1 auth

**FSN 3432-373-1732**

ORD 41-T-2376-50

TIP, OXYGEN ACETYLENE, CUTTING, drill size 45.

1 auth

**FSN 3432-373-1725**

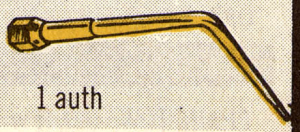
ORD 41-T-2349-90

TIP, OXYGEN ACETYLENE, CUTTING, drill size 52.

1 auth

**FSN 3432-373-1728**

ORD 41-T-2349-150



TIP, OXYGEN ACETYLENE, WELDING, drill size 53.

1 auth

**FSN 3432-373-1735**

ORD 41-T-2376-310

TIP, OXYGEN ACETYLENE, CUTTING, drill size 54.

1 auth

**FSN 3432-373-1729**

ORD 41-T-2349-180

TIP, OXYGEN ACETYLENE, WELDING, drill size 56.

1 auth

**FSN 3432-373-1736**

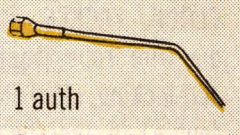
ORD 41-T-2376-510

TIP, OXYGEN ACETYLENE, WELDING, drill size 60.

1 auth

**FSN 3432-373-1738**

ORD 41-T-2376-850

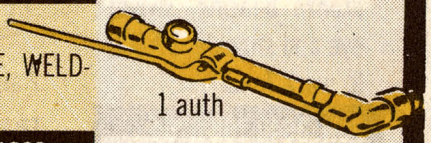


TIP, OXYGEN ACETYLENE, WELDING, drill size 65.

1 auth

**FSN 3432-373-1740**

ORD 41-T-2376-950



TORCH HANDLE, WELDING.

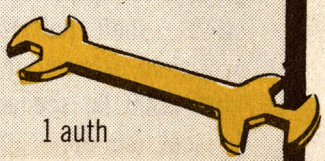
1 auth

**FSN 3432-391-1220**

TORCH WRENCH, WELDING, 4 way.

1 auth

**FSN 3432-391-1221**



WRENCH, TORCH AND REGULATOR, acetylene tank valve key.

1 auth

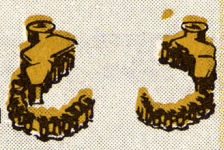
**FSN 5120-316-9204**

ORD 41-W-430-505

COMPARTMENT NO. 6. IS TO THE RIGHT OF COMPARTMENT NO. 5. THIS IS THE OVM THAT'S STOWED THERE—

AXLE CHAIN CLAMPS (used with BAR, Towing, "V", universal type ORD 8-B-52-770).

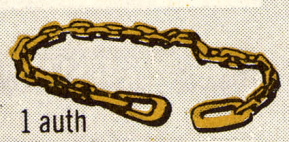
FSN



2 auth

CHAIN, TOW, 7/16 ft w grab hook and pear shaped link each end.

FSN 4010-047-3902

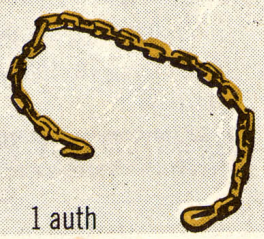


1 auth

ORD 8-C-4350

CHAIN ASSEMBLY, SINGLE LEG, 5/8-in by 16 ft w grab hook and pear shaped ring one end and pear shaped ring other end.

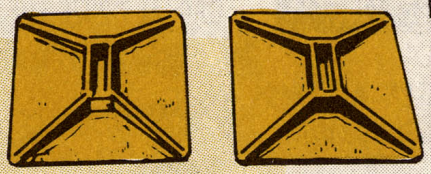
FSN 4010-473-6166

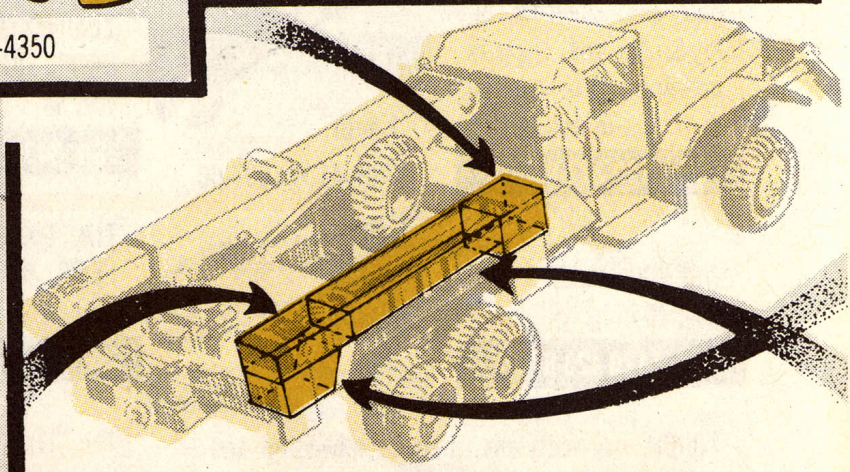


1 auth

ORD 8-C-4355

COMPARTMENT NO. 8— JUST IN BACK OF COMPARTMENT NO. 7— TAKES UP THE REST OF THE WRECKER'S RIGHT SIDE. IT TAKES THIS OVM—





BASE, boom jack, assy.

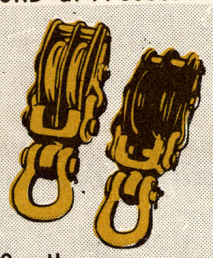
FSN 2540-040-2299

2 auth

ORD G744-8330155

BLOCK, TACKLE, 7/8-in dia wire rope, snatch, self-locking, steel shell, double 8-in steel sheave, bronze bearing, swivel eye and shackle, 32,000 lb work load.

FSN 3940-708-0704



2 auth

TRANS 19-1566-12-400

BLOCK, TACKLE, for use w/wire rope, .5-in max dia rope accommodated; spec A-56-90-21, type I, grade A; fittings, 1 hook, swivel; shell pattern, oval, steel; safe working load, 3000 lb; sheave, 1, steel, 6-in od.

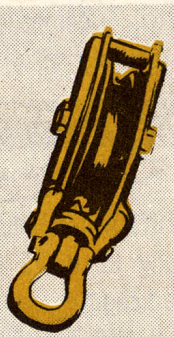
FSN 3940-286-1552

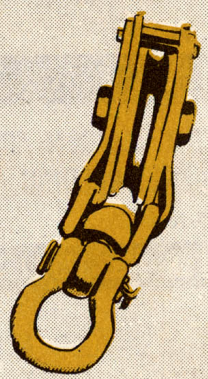
1 auth

TRANS 19-1566-11-210

BLOCK, TACKLE, bearing, plain, bronze; snatch block, drop link and crosshead for securing head in closed position, self-locking; center pin, steel, 1,500-in dia; for use w/wire rope, .875-in max dia rope accommodated; spec MIL-B-11837A, type II, style A; fittings, 1 hook, swivel, 1 eye and shackle, swivel, drilled, 1 eye, swivel, oblong, w upset shackle; shell pattern, rd, steel, safe working load, 30,000 lb; sheave, 1, steel, 10-in od.

FSN 3940-202-2200





2 auth

TRANS 19-1566-12-540

YOU'LL FIND COMPARTMENT NO. 10 UNDER THE REAR END OF COMPARTMENT NO. 8—IT'S THAT LITTLE CUBBY-HOLE. THIS IS THE OVM THAT GOES IN THIS COMPARTMENT:

CHAIN ASSEMBLY, TIRE, single, 11.00-20 type TS.

6 auth

**FSN 2540-054-0027**

ORD H014-0540027

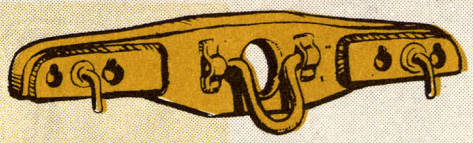
CHAIN ASSEMBLY, SINGLE LEG, high test steel, ¾-in rod size, 12 ft lg, pear shaped ring and grab hook.

2 auth

**FSN 4010-449-6573**

ORD 8-C-4358

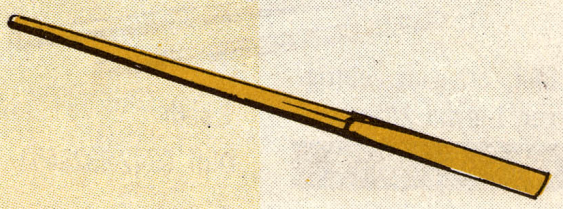
YOU'LL FIND COMPARTMENT NO. 7 RUNNING ALMOST THE WHOLE LENGTH OF THE WRECKER'S RIGHT SIDE. IT STARTS JUST IN BACK OF COMPARTMENT NO. 6. THE OVM FOR THIS HOLE? HERE 'TIS—



BAR, hoisting, assy

1 auth

**FSN 3940-347-9703**



CROW BAR, pinch pt, 1¼-in dia, 60-in lg.

1 auth

**FSN 5120-224-1390**

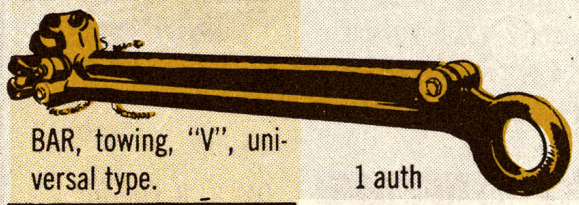
ENG 41-1247.300.600

BAR, tie, boom jack.

1 auth

**FSN 2540-040-2298**

ORD G744-8330152

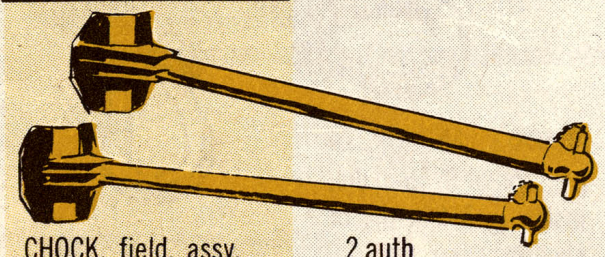


BAR, towing, "V", universal type.

1 auth

**FSN 4910-735-6056**

ORD 8-B-52-770

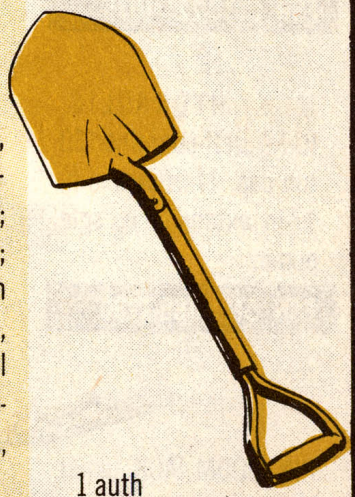


CHOCK, field, assy.

2 auth

**FSN 4820-315-2306**

ORD G744-8330150

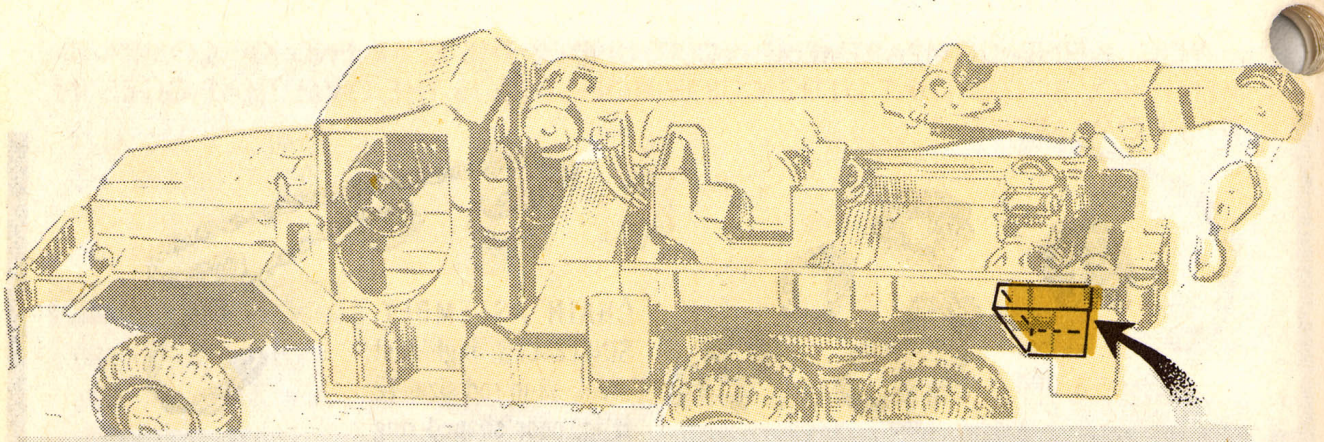


SHOVEL, HAND, rd point, Ref Dwg Group 60, section A, style 1; D-handle; commercial size No. 2; Blade, 11½ to 12½-in lg, 9½ to 10¼-in w, open back no special features; Fed GGG-S-326, type IV, class A, style 1.

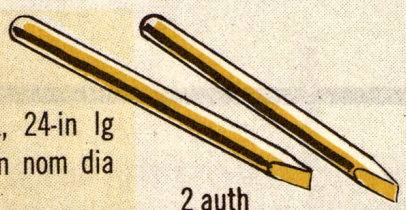
1 auth

**FSN 5120-250-1499**

ENG 41-7487.200.200



COMPARTMENT NO. 9 IS IN THE SAME SPOT AS COMPARTMENT NO. 10, BUT ON THE LEFT-HAND SIDE OF THE VEHICLE. THE OVM THAT GOES IN NO. 9 IS THIS:



BAR, CHISEL, 24-in lg over-all, 7/8-in nom dia of stk.

2 auth

**FSN 5120-238-8292**

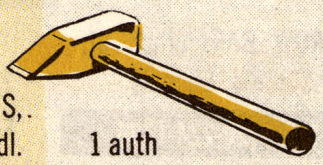
ORD 41-C-1140-024

BAR, cranking, outrigger, 1-in dia, 24-in lg.

2 auth

**FSN**

ORD G742-8328453

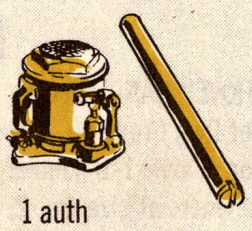


CHISEL, BLACKSMITH'S, cold, 1½-in cut, w/hdl.

1 auth

**FSN 5110-221-1075**

ORD 41-C-902



JACK, HYDRAULIC, HAND, self-contained 30 ton cap, 11-in closed h, 17-in extended h, sgle pump.

1 auth

**FSN 5120-188-1790**

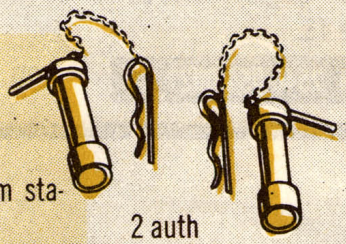
ORD 41-J-109

PIN, BOOM JACK, upper assy.

1 auth

**FSN 5315-316-1014**

ORD G744-8333071

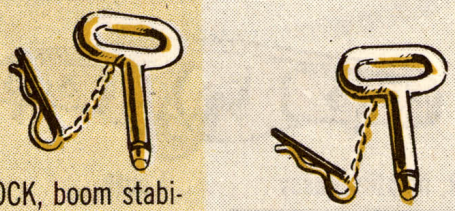


PIN, CROSS, boom stabilizing tubes.

2 auth

**FSN 5315-316-1012**

ORD G744-8332455

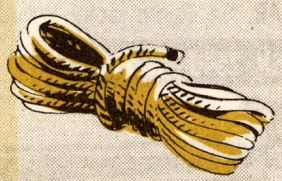


PIN, LOCK, boom stabilizing tubes.

2 auth

**FSN 5315-740-9834**

ORD G744-7409834



ROPE, MANILA, color natural, 3 strand, oil treated Fed-T-R-601a, amend 2; 1⅛-in circum; 24.4 ft per lb; 1350 lb breaking strength; Grade B.

1 auth

**FSN 4020-231-2581**

QM 21-R-358-10

SHACKLE, ANCHOR, rd pin, iron or S, 7/8-in dia, inside lg 3¼-in dia of pin 1-in.

2 auth

**FSN 4030-290-4362**

ORD 12-S-743

## THERE'S A LOT OF OTHER OVM STASHED ALL OVER THE VEHICLE. THIS SHOWS WHAT IT IS AND WHERE IT'S STOWED.

CYLINDER, gas, filled, oxygen, 200 cu ft (comp w/valve) (to be filled locally).

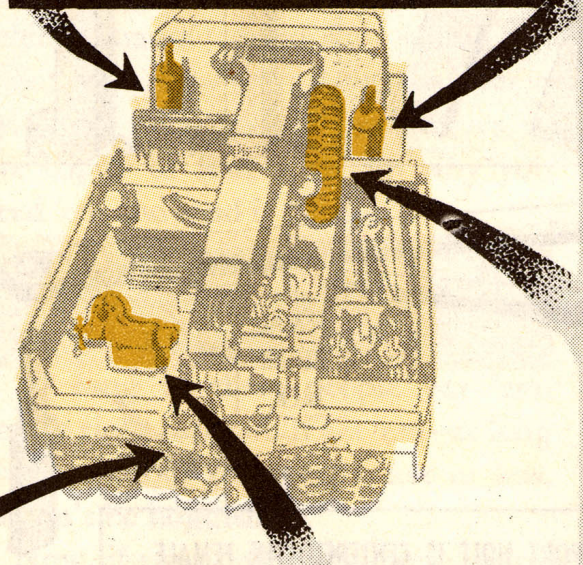
1 auth

**FSN** ENG 51-5116.800.500

CYLINDER, gas, filled, acetylene, 225 cu ft (comp w/valve) (to be filled locally).

1 auth

**FSN** ENG 51-5116.100.500



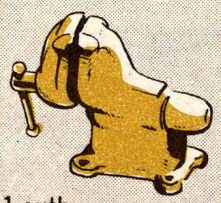
WHEEL, w/tire and tube, assy (spare). Composed of (components may be requisitioned separately):

1 auth

INNER TUBE, pneumatic tire, truck and bus, 10.50/11.00 x 20 (No. MT-20) (New).

1 auth

**FSN 2610-051-9450** ORD H014-0519450



VISE, BENCH AND PIPE, stationary jaw, swv-base, 5-in jaw w, 1⅛ to 4-in pipe cap.

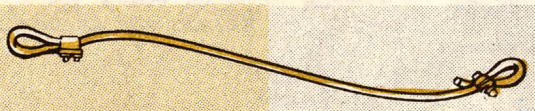
1 auth

**FSN 5120-243-9072** ORD 41-V-204

TIRE, pneumatic, truck and bus, 12 ply, cross-country tread, 11.00x20 (new).

1 auth

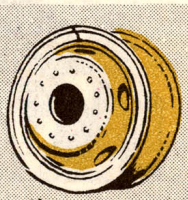
**FSN 2610-262-8653** ORD H014-0515110



GUY LINE, assy

1 auth

**FSN 2520-040-2297** ORD G744-8330151



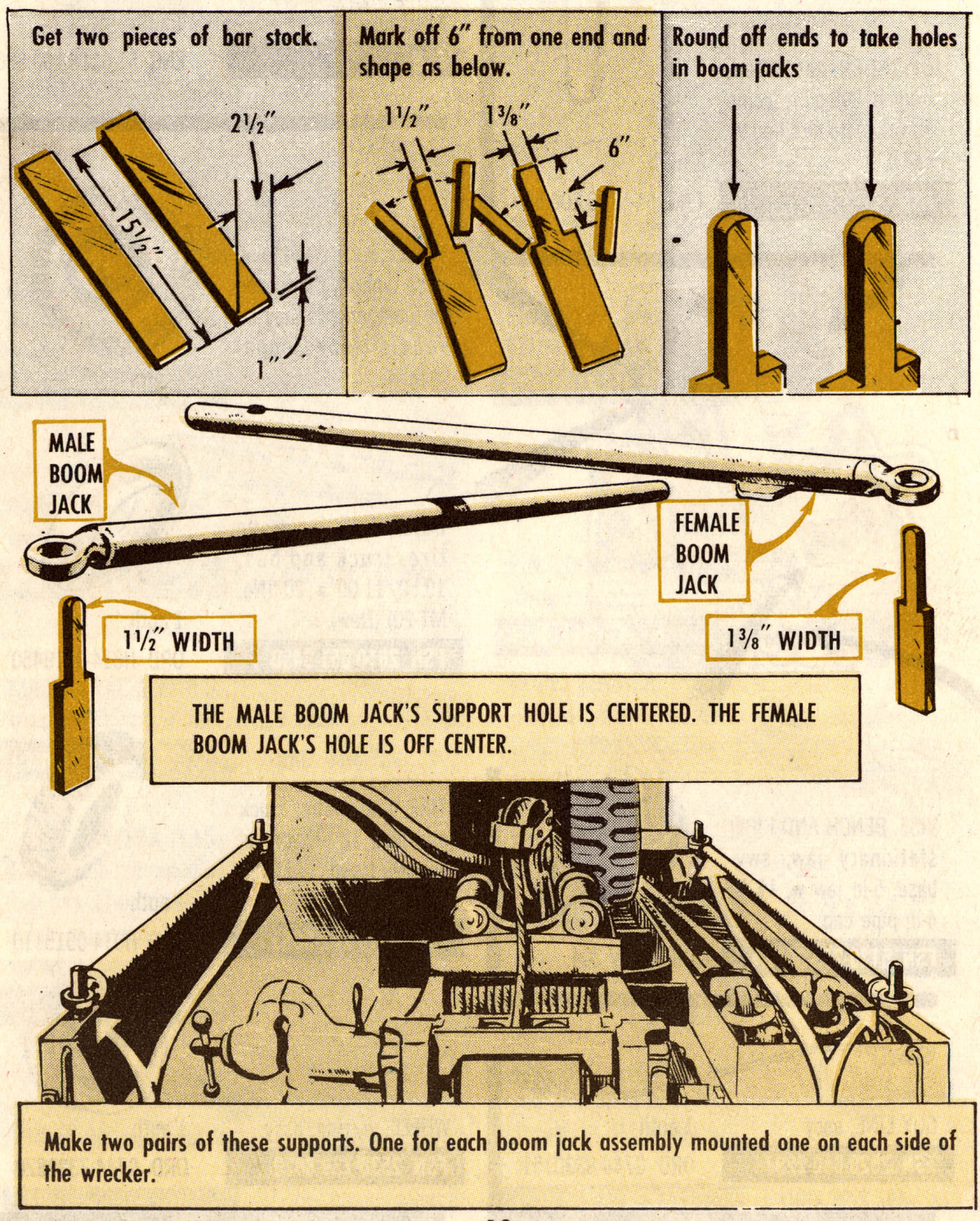
WHEEL, w/ring, assy.

1 auth

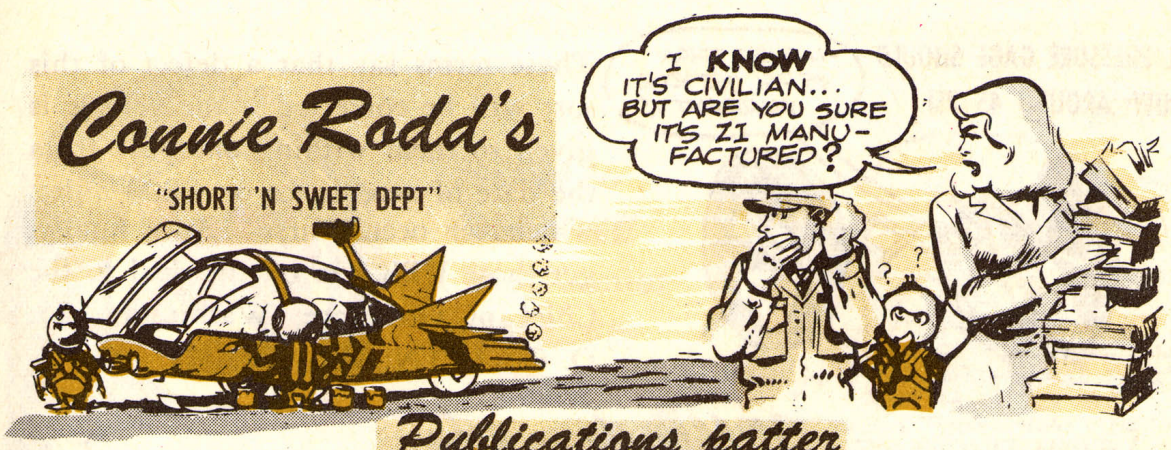
**FSN 2530-738-8820** ORD G744-7388820

As far as your Tube, jack boom, bottom (ORD Stock No. G744-8330158; FSN 2540-040-2301) and Tube, jack boom, top (ORD Stock No. G744-8330157; FSN 2540-040-2300)—you've got two of each—they should go in the trough on the right hand side of your vehicle. But, if your CO goes along with it and if you can get the material, to sorta make a neater job, you can put 'em on your vehicle's side by using four supports.

Here's how:




Make two pairs of these supports. One for each boom jack assembly mounted one on each side of the wrecker.

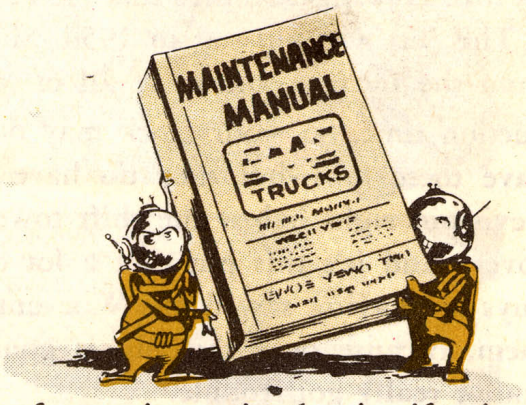



## Publications patter

With more and more commercial-type vehicles hitting the field, there's been some wondering coming from second-echelon shops 'bout how to get those manufacturer's maintenance and parts manuals. Without 'em you can't very well pull your maintenance services and get those parts you need. This is only for those vehicles manufactured state-side.

So, something's been worked out which'll make those books easy to come by. First, take stock of how many manuals you'll need in your shops. If it's five copies or less; write up why you need 'em and send it to:

**Commanding Officer,**
**Raritan Arsenal, Metuchen, N. J.,**
**ATTN: ORDJR-P.**




As long as these people got 'em, you're right sure you'll get 'em—as long as the number you need is five or less, so don't be hoggish.

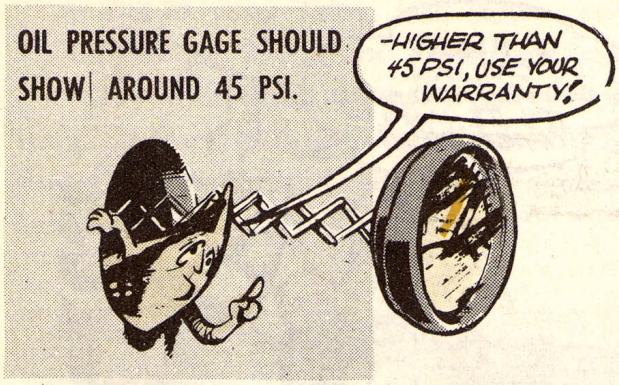
Now, if your unit really needs more than five copies, write that justification to Chief of Ordnance, Department of the Army, Washington 25, D. C., ATTN: ORDFM-Pub. If your why-for is OK—they'll buck it to the people at Raritan. Then you'll get your manuals.

## Cagey gage

Quick, now—check that contract number on the plate in the cab of your Model 424 GMC 2½-ton stake and platform truck. If the number is DA 20-113-Ord-19765, take a gander at the truck's oil pressure gage—it may be bustin' a gut.

Seems that some running-wild gages got into the picture, and they're not recording the normal oil pressure for the truck, which is around 45-PSI. If your gage shows over this 45 figure, you've got a case.

Tell your organizational shop about it. They'll get in touch with your support unit, who'll contact the local GMC outfit—they're listed in SB 9-98-7 (8 Jun 53). The manufacturer'll replace these bad gages under the warranty terms of SB 9-98-1 (1 Nov 51).



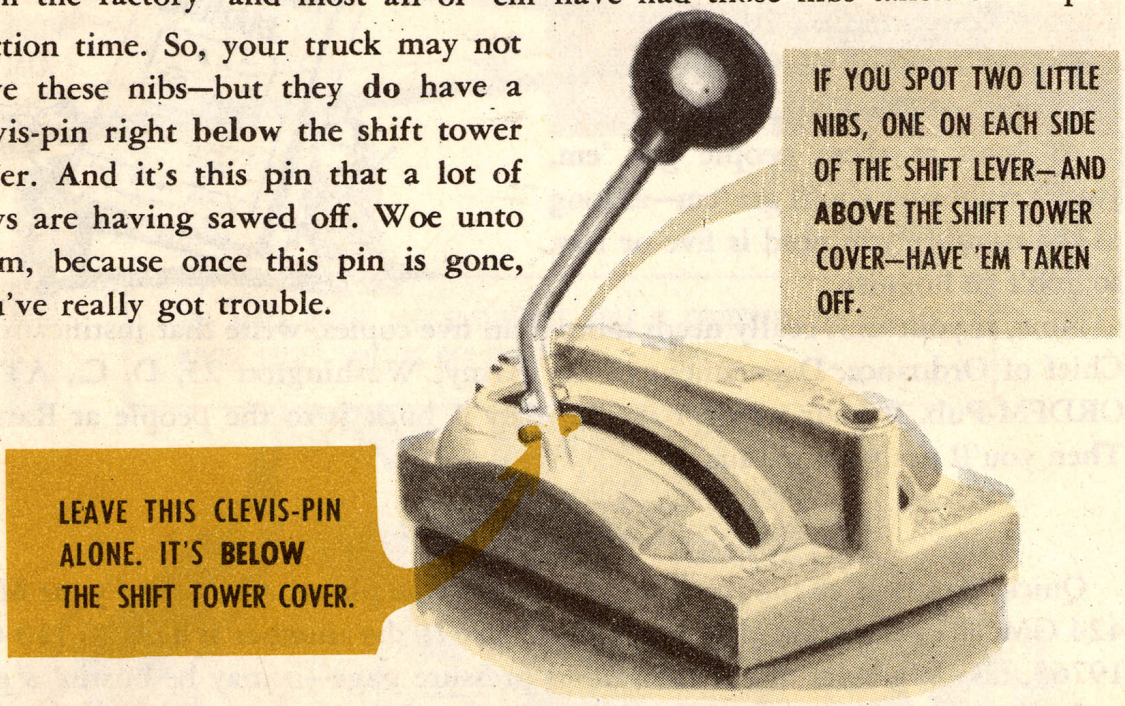

These terms say that a defect of this sort will be corrected if the vehicle is given to them within "one year from the date of acceptance or 4,000 miles, whichever occurs first". And, finally, get those UER's in on the deal to the Chief of Ordnance, Washington 25, D. C., ATTN: ORDFM.

## *Nibble those nibs*

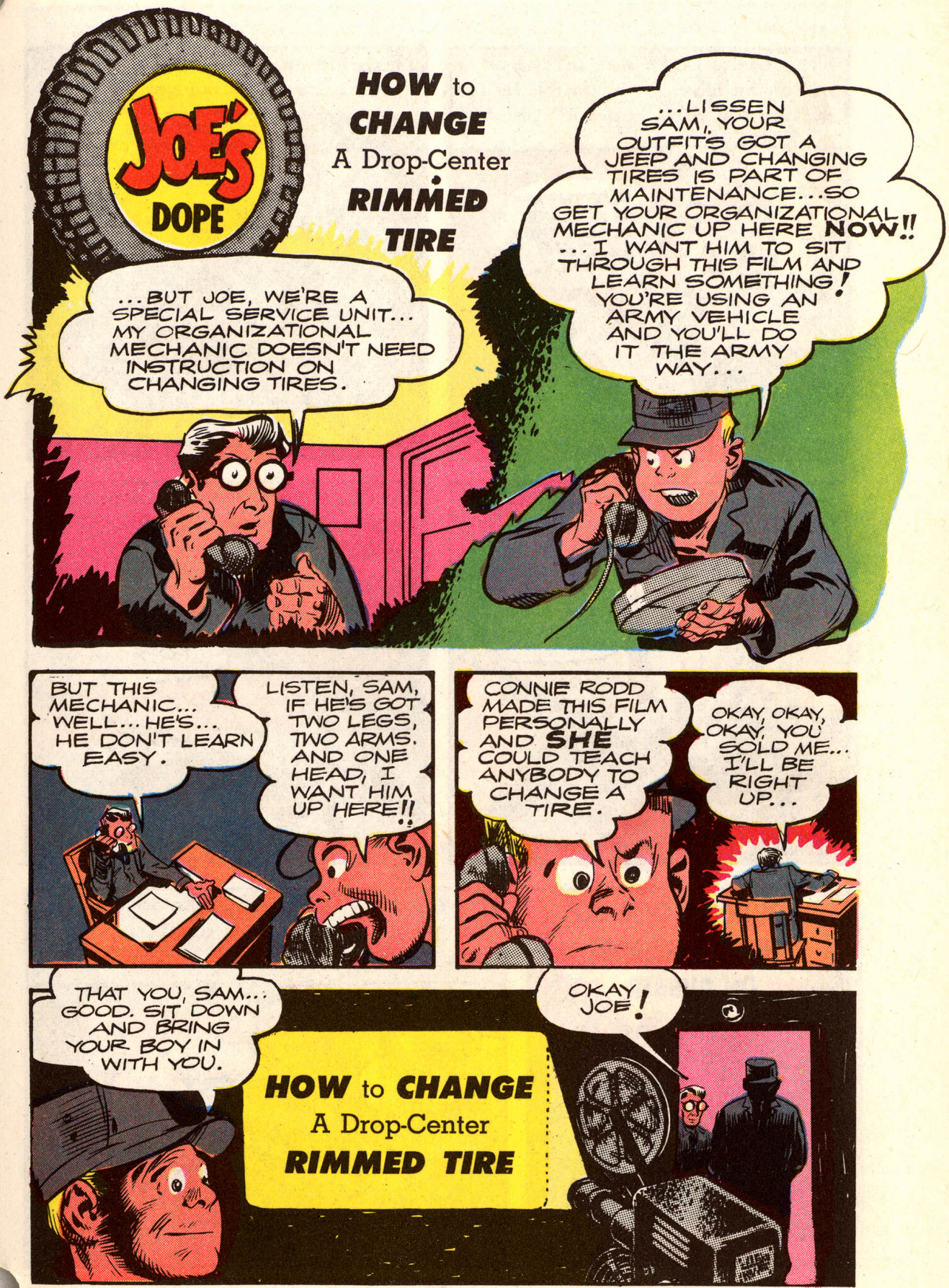
Watch that Houdini-like power of suggestion—like when you get hold of TB Ord 9-819A-15 (14 May 54), read it over very careful-like and say to yourself, "That's for me." 'Tain't necessarily so, brother.

This TB says to look over the transmission shift-control lever on your G749-series 2½-ton trucks. If you spot two nibs on this lever, it says to have your mechanic file 'em off. That's just fine—but you gotta be awfully careful and don't let this TB suggest things that aren't there.

This TB was put out in 1954. Since then, a lot of G749 trucks have come from the factory—and most all of 'em have had those nibs taken off at production time. So, your truck may not have these nibs—but they **do** have a clevis-pin right **below** the shift tower cover. And it's this pin that a lot of guys are having sawed off. Woe unto them, because once this pin is gone, you've really got trouble.



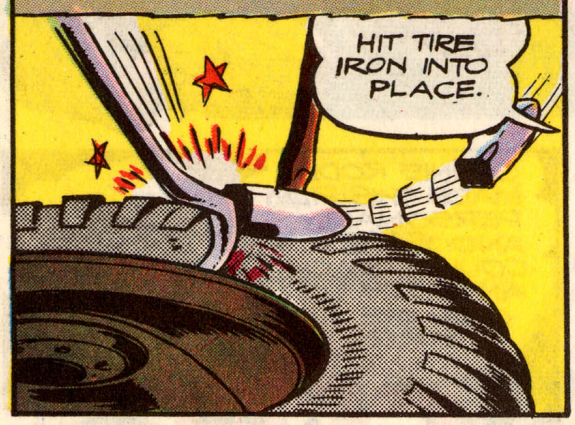

These nibs are taken off to make it easier to shift from HIGH to LOW range when you're plugging up a hill. With these nibs, it's possible that you won't make the shift fast enough and will start rolling back before you complete the shift. You can see what happens when a forward shift is made with the axles, shafts and transfer rolling backwards—they get yanked in the opposite direction. The strain's enough to break the transmission output shaft.


JOE'S DOPE
HOW to CHANGE A Drop-Center RIMMED TIRE
...BUT JOE, WE'RE A SPECIAL SERVICE UNIT... MY ORGANIZATIONAL MECHANIC DOESN'T NEED INSTRUCTION ON CHANGING TIRES.
...LISSEN SAM, YOUR OUTFIT'S GOT A JEEP AND CHANGING TIRES IS PART OF MAINTENANCE...SO GET YOUR ORGANIZATIONAL MECHANIC UP HERE NOW!! ...I WANT HIM TO SIT THROUGH THIS FILM AND LEARN SOMETHING! YOU'RE USING AN ARMY VEHICLE AND YOU'LL DO IT THE ARMY WAY...
BUT THIS MECHANIC... WELL... HE'S... HE DON'T LEARN EASY.
LISTEN, SAM, IF HE'S GOT TWO LEGS, TWO ARMS, AND ONE HEAD, I WANT HIM UP HERE!!
CONNIE RODD MADE THIS FILM PERSONALLY AND SHE COULD TEACH ANYBODY TO CHANGE A TIRE.
OKAY, OKAY, OKAY, YOU SOLD ME... I'LL BE RIGHT UP...
THAT YOU, SAM... GOOD. SIT DOWN AND BRING YOUR BOY IN WITH YOU.
HOW to CHANGE A Drop-Center RIMMED TIRE
OKAY JOE!

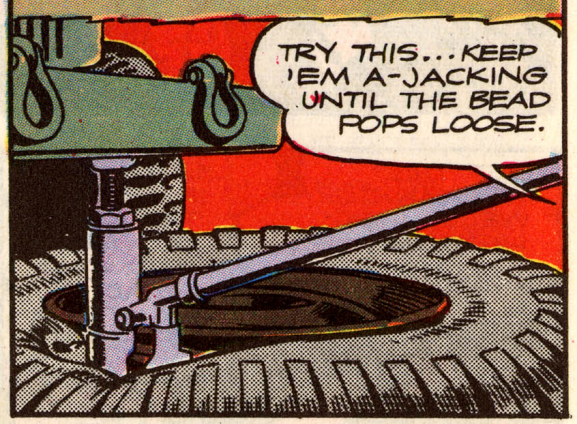
First of all...Make sure **all** the air is out of the tube....You do this by removing the valve cap and core.

Next, loosen (both) the outside and inside beads from the rim flanges.

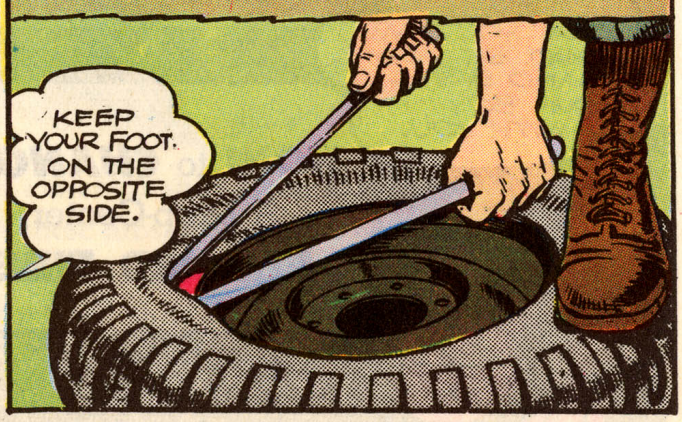
Another way is...using military type tire iron (Ord Stock No. 41-I-780) and a hammer.



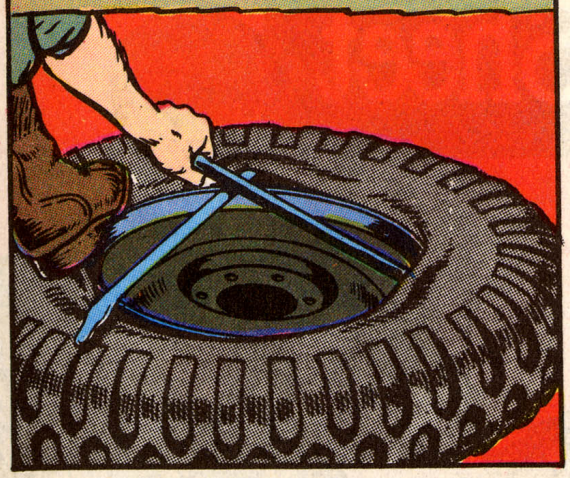

Now, sometimes the tire and rim have been matched for a long time which makes it tough to loosen.



Now, with the tire beads separated from the flanges put two tire irons about six inches apart.

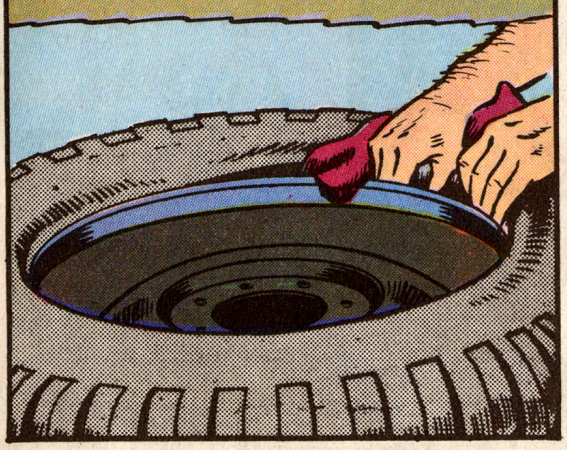


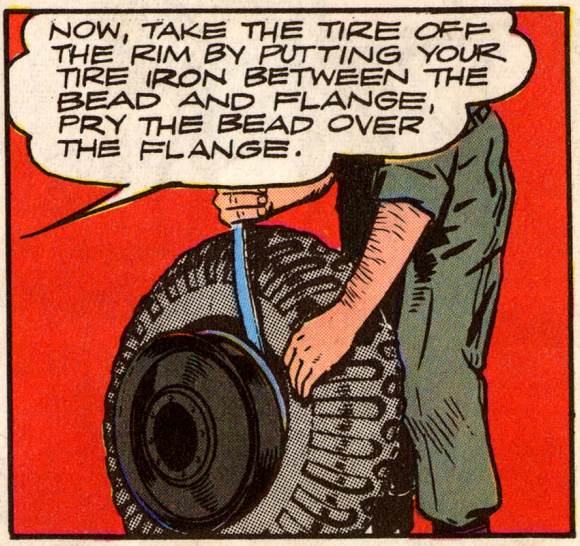
Starting near the valve pry around the tire...taking bites of 1½ to 2 inches.



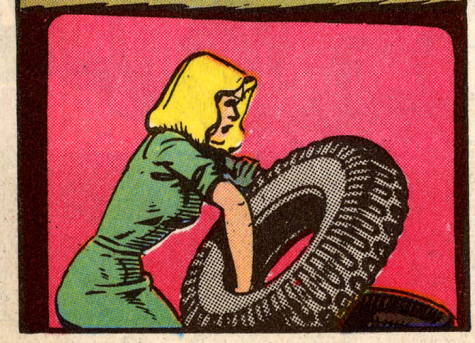
When you've got the tire bead lapping the rim flange, start taking your tube out...

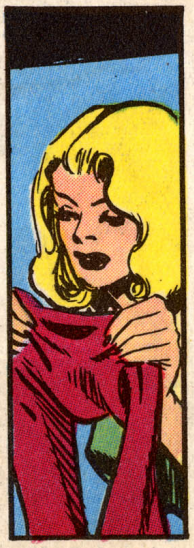
...being careful not to jerk the valve or you'll rip it right off.






Now, take tire off rim, feel inside tire for any junk that could knock rubber out of your tube (pebbles, pieces of wire, nails, etc.).





JOE'S
Dope Sheet
WE HAVE THE WORLD'S BEST E

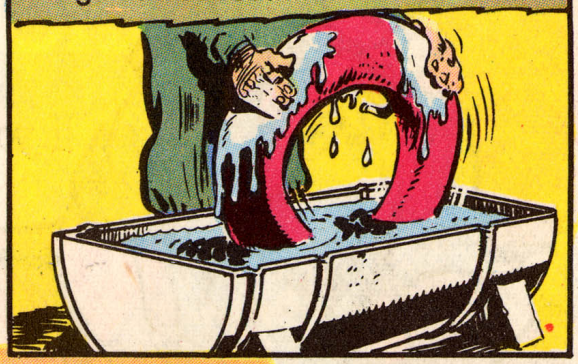
JOE'S Dope Sheet
A tire-changing detail's not tough
With the TM, tools, know-how and stuff.
But the bead catches heck,,
And the valve's made a wreck,,
If you strain 'em and treat 'em too rough.
WILL EISNER
WE HAVE THE WORLD'S BEST EQUIPMENT...Take care of it

QUIPMENT . . . Take care of it

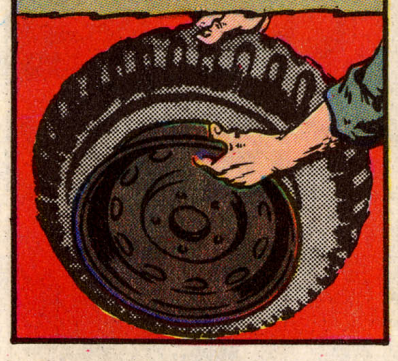
Reel 2

# PUT 'EM BACK TOGETHER

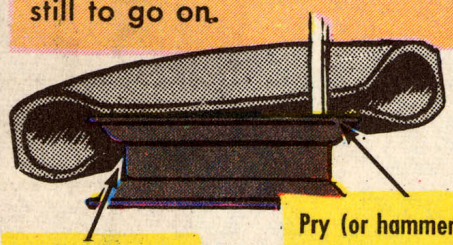
Before you put 'em back together go over every inch of the tire, tube and rim . . . repair what you can, replace things as needed.



Stand the tire so its tread part is on the ground. Take the rim and jam its outer flange onto the tire inside the first bead.



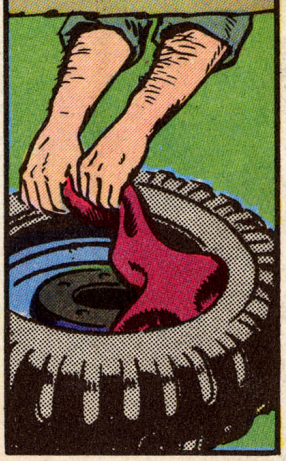
Lay rim and tire flat on ground (inside down). Now, with a tire tool, go around and pry the bead onto the rim, so that when you're done you've got one bead in the rim's well and one bead still to go on.



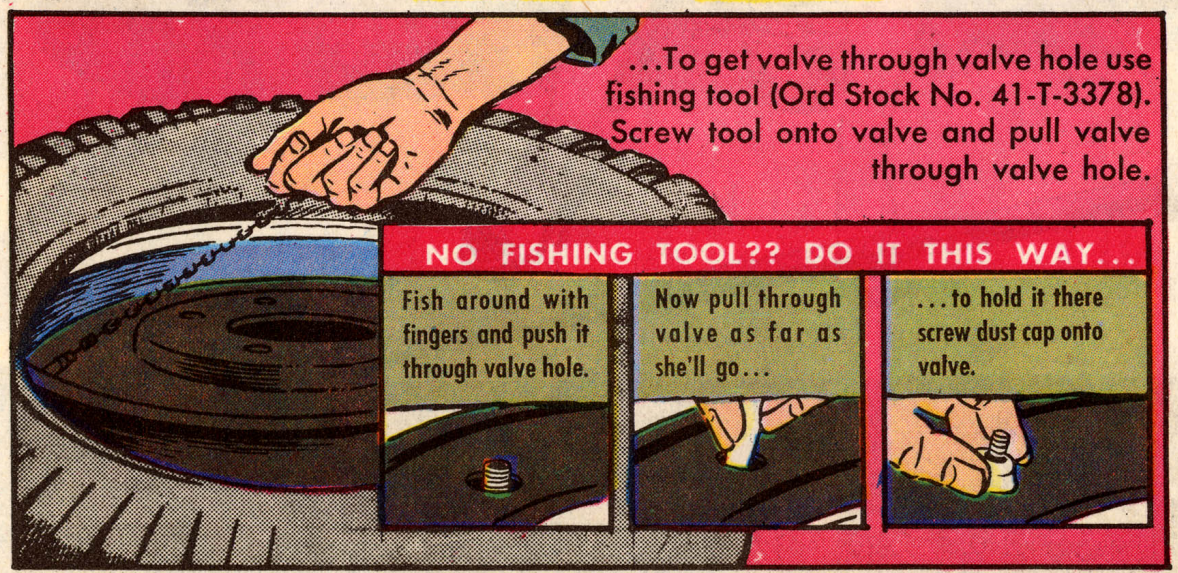
Put bead in drop center of rim (deepest part)

Pry (or hammer) here to get the rest of the bead into the rim well

Start stuffing the tube back into the tire.



...To get valve through valve hole use fishing tool (Ord Stock No. 41-T-3378). Screw tool onto valve and pull valve through valve hole.



NO FISHING TOOL?? DO IT THIS WAY...

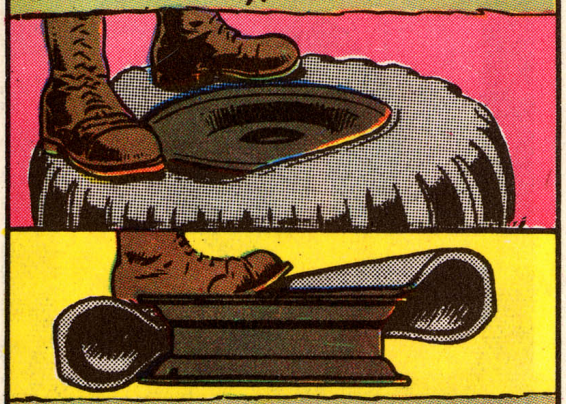
Fish around with fingers and push it through valve hole.

Now pull through valve as far as she'll go...

...to hold it there screw dust cap onto valve.

## NOW YOU'RE READY TO GET THE OUTER BEAD INTO THE WELL...

First—on the side opposite the valve walk the bead in far as you can (about half way)...

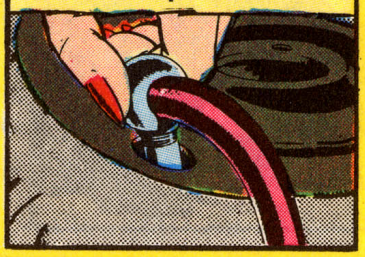


...getting **BOTH** beads in drop center of rim.

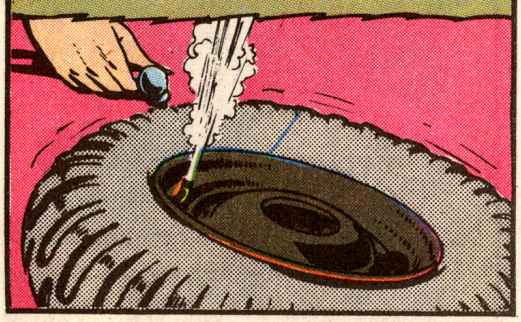
Then hammer bead in, following with one foot (it's safer than two) to keep it in.

...But, if you haven't got a hammer...you'll have to use tire tools....In some tires the beads won't seat in the rim flanges because of friction between beads and rim. Make a soap solution and swab down beads. Watch out for that tube inside.

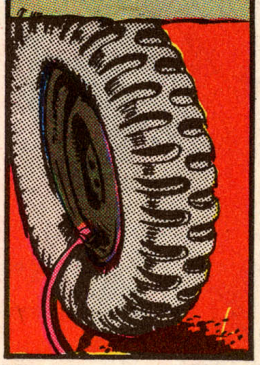
Now, inflate to full pressure.

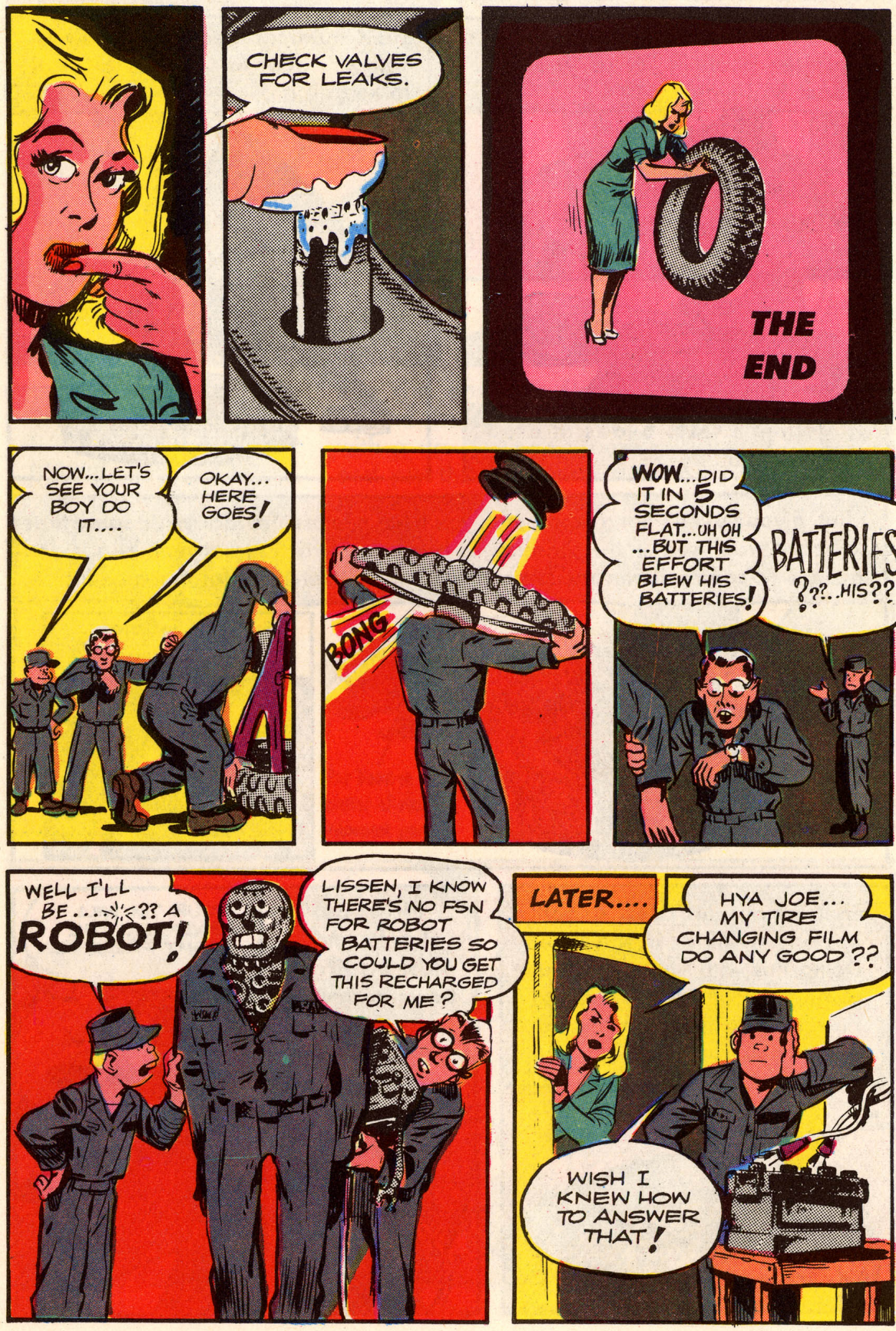


Then let air out! This'll smooth out any wrinkles in the tube. Doing this with valve core out gives you a quick way to deflate the tire if it's not put together right.



...Now put valve in and blow up tire to its correct pressure.



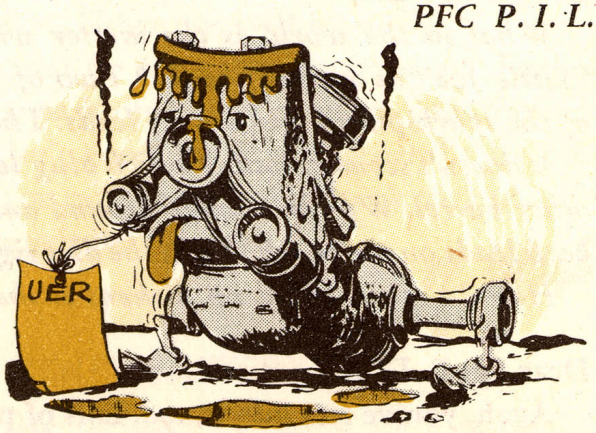

CHECK VALVES FOR LEAKS.
THE END
NOW...LET'S SEE YOUR BOY DO IT....
OKAY... HERE GOES!
BONG
WOW...DID IT IN 5 SECONDS FLAT...UH OH ...BUT THIS EFFORT BLEW HIS BATTERIES!
BATTERIES ??..HIS??
WELL I'LL BE....?? A ROBOT!
LISSEN, I KNOW THERE'S NO PSN FOR ROBOT BATTERIES SO COULD YOU GET THIS RECHARGED FOR ME?
LATER....
HYA JOE... MY TIRE CHANGING FILM DO ANY GOOD??
WISH I KNEW HOW TO ANSWER THAT!

## QUARTS DOWN THE DRAIN

*Dear Half-Mast,*

*I've got oil slurping out around the valve cover on the right side of the engine in my Model 424 2½-ton stake and platform truck. The gasket checks out OK. What do you think it is, and what should I do about it?*

*PFC P. I. L.*




Dear PFC P. I. L.,

If the gasket's OK and you're still losing oil from around the cover, it could very well be that there's an irregularity in the engine block at that point. And, there's nothing much you as a driver or second echelon mechanic can do about it, except start the ball rolling to fix it up.

First—and probably most important—get your UER (Form 468) off. It makes a big noise, because it tells the people who want to know about this stuff exactly what's going on. Write it to Chief of Ordnance, Department of the Army, Washington 25, D. C., ATTN: ORDFM.

Now, if your truck's still within the warranty period, get it back to your organizational shop. They'll turn it over to your support unit who'll contact the manufacturer and let him look it over. If the warranty's run out, your support outfit'll have to take care of it.

*Half-Mast*

## LUBEY TUNES

*Dear Half-Mast,*

*I'm stumped as to which oil to use in my Model 424 2½-ton stake and platform truck's transmission. I had a Clark transmission in that baby—and the manufacturer's manual said to use ES which, according to TB Ord 378, is the military GO 90.*

*Well, that transmission went (not because of the lube, mind you), and it was replaced with a New Process transmission. There's no dope as to what lube to use in this new transmission. Give me a hand, huh?*

*Sgt H. O. L.*

Dear Sgt H. O. L.,

Makes no difference what kind of transmission you have in that truck—Clark or New Process—you'll still use GO 90 (MIL-L-2105). That's the only lubricant to use in mechanical transmissions.

Half-Mast

## MYSTIFYING MAGNETO

*Dear Half-Mast,*

*What in the world is the matter with the Wico magneto on the Wisconsin "Little Joe" in my M47 tanks? Two of 'em won't run at all until we ground one of the spark plug high-tension leads. Then they'll run fine on one cylinder.*

*It doesn't seem to matter which plug lead we ground, the engine will run on the other barrel. We can change around and it will still run fine, but when we put both leads on the spark plugs, she dies right out and won't re-start.*

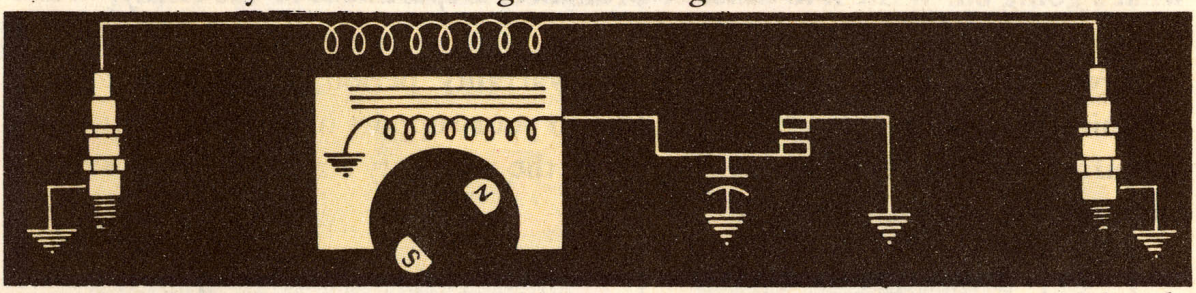
*How in the cobbled-up dickens is that magneto wired?*

*Sgt E. D. B.*

Dear Sgt E. D. B.,

Ayah, you've run into it, too. Lots of people have been puzzled by that peculiar Wico magneto on the Wisconsin auxiliary engine. It does seem to behave in a most unusual manner until you know the secret.

The secondary coil of this magneto is not grounded.




Each end goes to one of the spark plugs. Consequently, when the points break, both plugs fire simultaneously. Naturally, to make such a system work, they have to fire the plugs at every revolution of the crankshaft. This means that as one cylinder is fired near the top of the compression stroke to develop a power stroke, the other one has a wasted flash of its spark plug near the top of the exhaust stroke. However, this does no harm, and any possible reduction of spark

plug life is more than made up for by the fact that no distributor section is needed in the magneto.

So what's this to you? Only the background so you can understand huccome an engine that won't run with its spark plugs both connected will start and run when one plug lead is grounded.

Once you understand this, you are able to make a common sense diagnosis of the probable trouble and correct it.

Actually, this effect is caused by a falling off of magneto secondary voltage to the point where it can jump one spark plug but not both. This falling off can be caused by any of the ailments that afflict magnetos. Dirty points, points not gapped correctly, weak capacitor, shorted or open primary or secondary, etc. Perhaps the most common failing is dirty points. You check the magneto out by **grounding** one of the secondary leads, (either one—doesn't matter) and checking for a spark at the other secondary lead. Remember, this spark has to be able to jump two plug gaps, so it's gotta be real hot, at least a quarter of an inch.

If the trouble isn't easy to find and fix, you replace the magneto and send the ailing one back for higher echelon rebuild. NOTE: You may be issued a Wico mag, or a Fairbanks-Morse for this engine. Either one will work OK.

EMERGENCY FIX: If you are caught out far from your supplies, and have to run your auxiliary, carefully clean both spark plugs and close the gaps down to about ten thousandths of an inch. This isn't good, but it will generally let your weakened magneto fire the engine until you can get back to the tank park. Be sure to re-gap the plugs correctly when you repair the magneto.

*Half-Mast*

## WOULDN'T IT FROST YOUR BATTERY?

*Dear Half-Mast,*

*I caught you with your specific gravity down this time! On accounta that discharged battery you tell about on page 26 of PS #49 would freeze at ten degrees* ***above*** *zero, not ten* ***below****, betcha!*

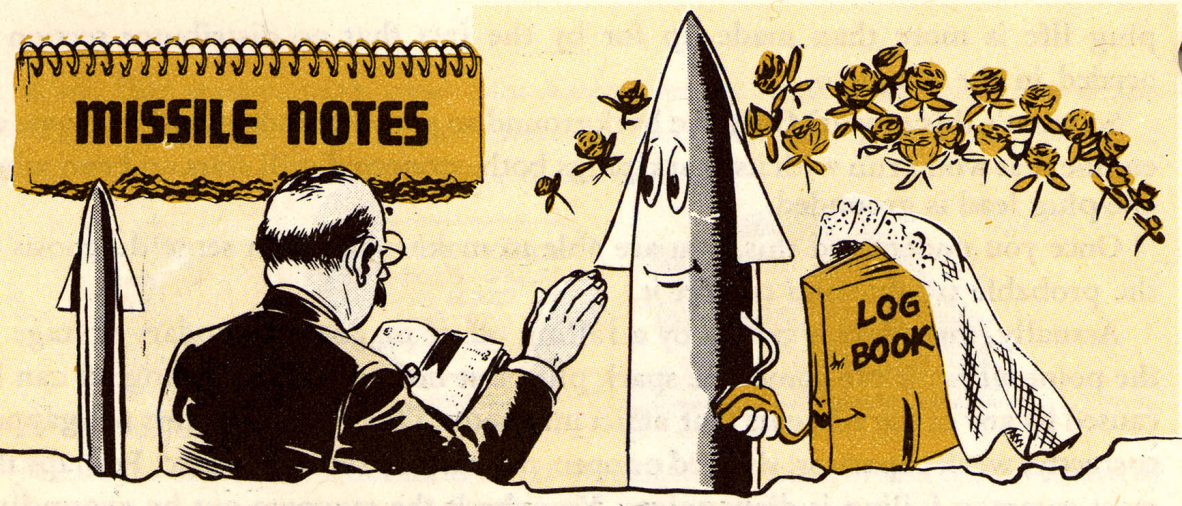
*Mr. R. B. W.*

Dear Mr. R. B. W.,

You are so right. A discharged battery will freeze at ten degrees above zero (Fahrenheit). That shoulda been a plus sign, not a minus. Woe is me!

To go a step further . . . a discharged battery has been known to freeze and bust at plus 25 degrees (F.). So take no chances by keeping your battery charged at all times.

*Half-Mast*




# PARTNERS FOR LIFE

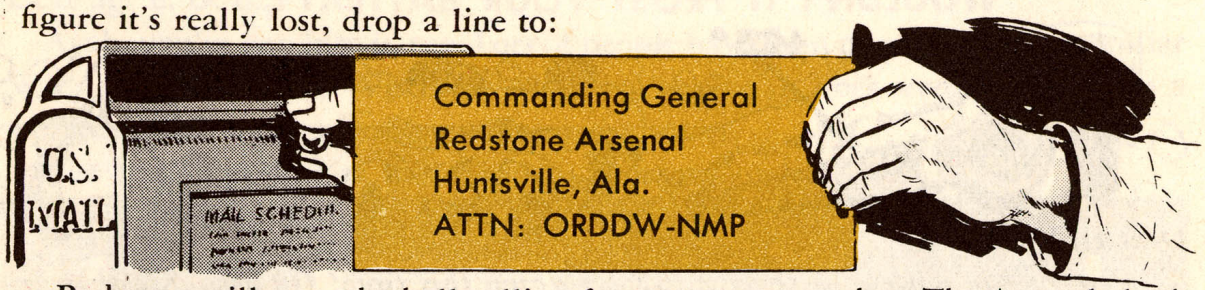
Close as a hot, humid day—that's what your log book should be to each missile and major item of ground handling or guidance equipment in your guided missile outfit.

And each book's gotta stay with its missile or equipment from the time they're built until they're done in.

The book gets loaded with all sorts of scoop—operating time, inspections, modifications and when or where the missile or equipment was moved. About the only thing you don't do is write down your girl's phone number.

Ordnance wants all the info it can get its hands on for the guys in the rebuild shops . . . so's they'll know what was done with the missiles and equipment. That scoop is, or should be, in the log book.

If you misplace a log book, round up a posse and go look for it. When you figure it's really lost, drop a line to:

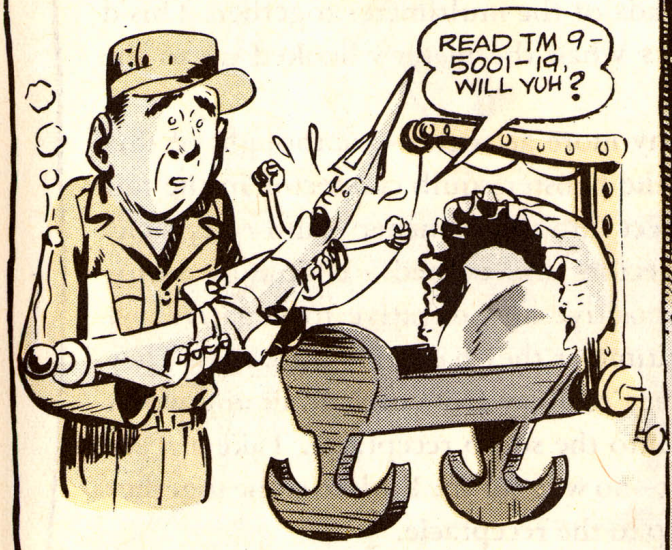



Redstone will start the ball rolling for you to get another. The Arsenal also is the place to write for extra pages for a log book. When a page is filled up, requisition more by telling what section, page number and number of pages you need.

And it's a smart thing to make some notes while you're waiting for a new book or extra pages. You can put the info in the new book or pages when you get 'em.

One more thing . . . don't use two log books for the same missile or equipment. You'll sure get things fouled up that way, what with one pencil not knowing what the other pencil's doing.

# RIGHT UPBRINGING FOR MISSILE



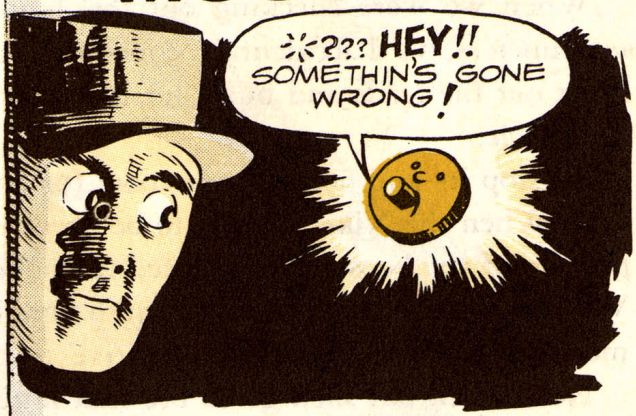

Whoa . . . thar.

No Nike-Ajax missileman ever operates the missile hoist beam without making sure he knows what it says about the job in TM 9-5001-19.

Supposing you didn't read the handbook and then went ahead and hooked up the missile the wrong way. Then you remove the missile from the launching rail. The missile tips . . . hits the launcher . . . and the oxidizer tank busts open.

And don't forget about the lift points on the beam. Station 140.90 is marked "Lift Point for Complete Missile" and means you do the lifting there whether the missile has or hasn't got any propellants or warheads. And Station 175.70 is marked "Lift Point for Main Body Section Only." You use that lift point for the aft missile body when the section from Station 0.000 to Station 75.781 isn't attached.

# MINNY AIN'T NO MOOCHER




Sit down in front of your Nike-Ajax section control panels for a sec, and feast your eyes on that long line of fuses on top. As you can see, every one of those juicers has a li'l light on 'em which flashes on when something's gone wrong with the fuse — all except those two fuses in the right-hand corner.

Now, it's these two fuses that can throw you. They're called MIN 2-amp fuses and are the only ones that should be used in that part of the panel. They have a small red nipple that pops out when the fuse goes bad. The nipple is in plain sight.

The reason for this spiel is to warn you guys to keep on the lookout for the ABU 2-amp fuse which can be fitted into the MIN 2-amp fuse slots. They'll work fine — but there's one reason (and that's enough) why you shouldn't use 'em. They haven't got a red nipple or a light and there's no way of telling when the fuse blows its top.

So, MIN (and its red nipple) is for you. Shy away from the ABU.

# SCRIBBLE THIS SQUIB

Dear Editor,

The K-1 relays in our Nike-Ajax fire circuit were burning out. Shorts did it, and here's why—

When we were checking out the launcher squib receptacles with our 352 multimeters, we'd accidentally touch the leads of the multimeter together. This'd short out the leads and burn out the relays when the meter's hooked up to the receptacle.

To stop it—and not to leave room for any more accidents—we thought of this idea. When the Nike is ready to be fired, the booster squib connector in the tail portion of the booster is supposed to connect into the launcher squib receptacle. We got hold of some of these squib connectors and tapped a couple of multimeter leads right into them—positive to positive and negative to negative.

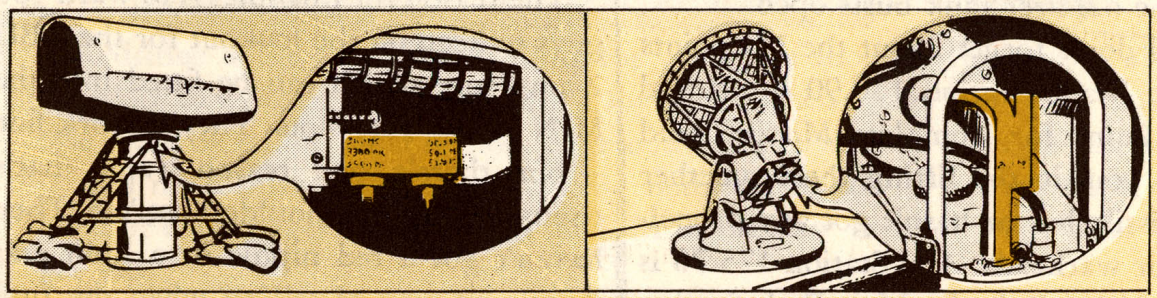
Now when our men go to use that multimeter they have this little tool. They first put the leads into their multimeter—they're away from each other and won't short. They then push the squib connector into the squib receptacle. Take a reading, pull the connector and receptacle apart—no way for the leads to come together and short while the multimeter's hooked up to the receptacle.

A Btry, 526th Missile Bn

# FIGURES MISSING?

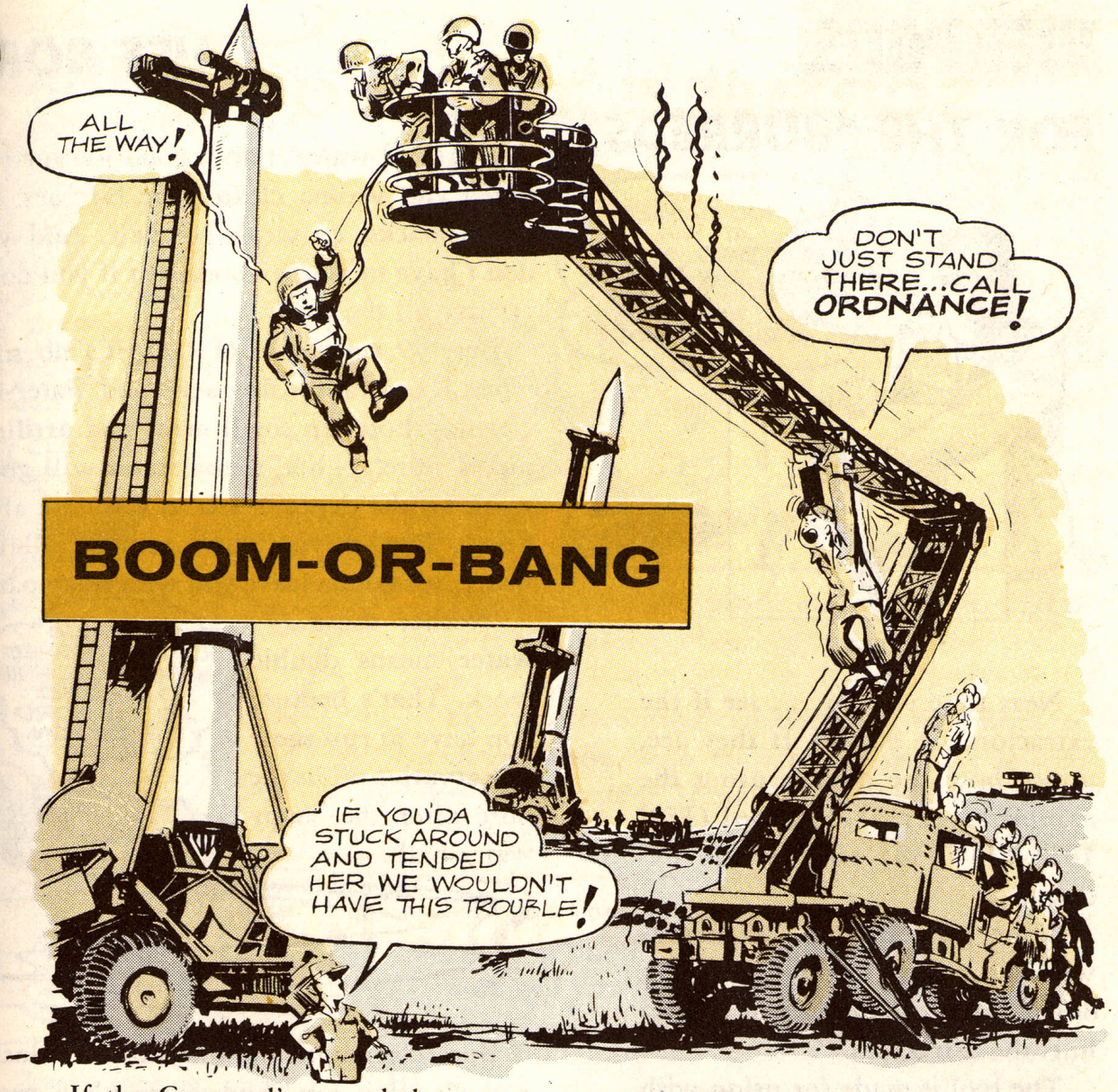
Are your acquisition and track directional couplers on the M33 FCS missing decibel calibrations? If the calibrations aren't entered in the record book and they've been painted over or worn off the couplers, you're missing important figures.

Ordnance is taking a survey of missing calibrations. To get your couplers recalibrated and legibly marked, notify your Ordnance Officer. He'll report the situation to Frankford Arsenal, and they'll take over.



PUT THESE CALIBRATIONS INSIDE FRONT COVER OF SYSTEM'S RECORD BOOK

If you're not in trouble yet, keep out of it. Put those calibrations on the inside front cover of your system's record book. Then they're still around if the ones on the coupler are painted over or something.




If the Corporal's your baby . . . you wanna be a baby sitter when it comes to operating the missile's servicing platform—either the M280 or the M280E1.

Never leave the platform in the servicing position unless someone's around to tend it. Seems there's some normal leakage in the valves and pistons of the hydraulic system—enough to allow the extended booms to "creep." You hardly notice the booms move during the time it takes to service the missile.

But, it's something else again when you finish the job and then walk away—leaving things up in the air. All this time the extended booms are heading toward the ground. The movement of the booms could jam the platform at the end of the upper boom enough to knock the leveling system outta kilter.

That's nothing compared to what happens when the booms get so low they're parallel with the ground and the bottom boom doesn't line up with the boom tie-down. Ordnance takes over, then—repairing the lower boom, truck cab and anything else that gets in the way of the boom.

So it pays to keep the platform in traveling position when you're not using it.

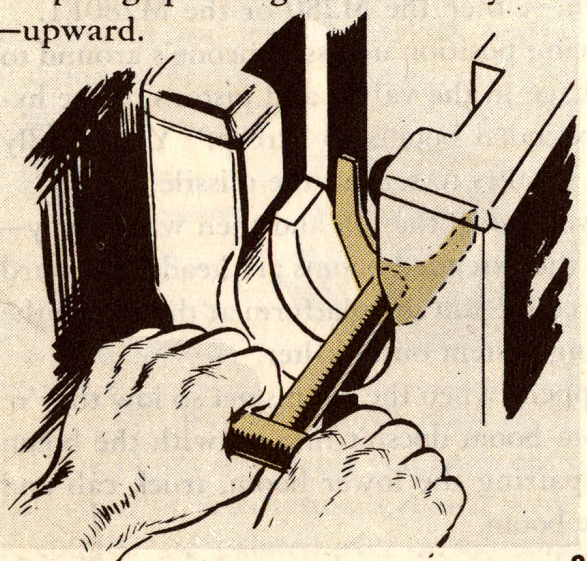
# WEAPONS

## FOR THE "BURREDS"

Next time you do . . . see if the extractors are burred. If they are, notice how the man is using the ramming-extracting tool (FSN 1015-723-8638) to trip the extractors.

Some guys hit the extractors with the prongs of the tool facing down. 'Tain't the right way. Could hurt the extractors.

The tool is made for using with the prongs pointing the other way —upward.

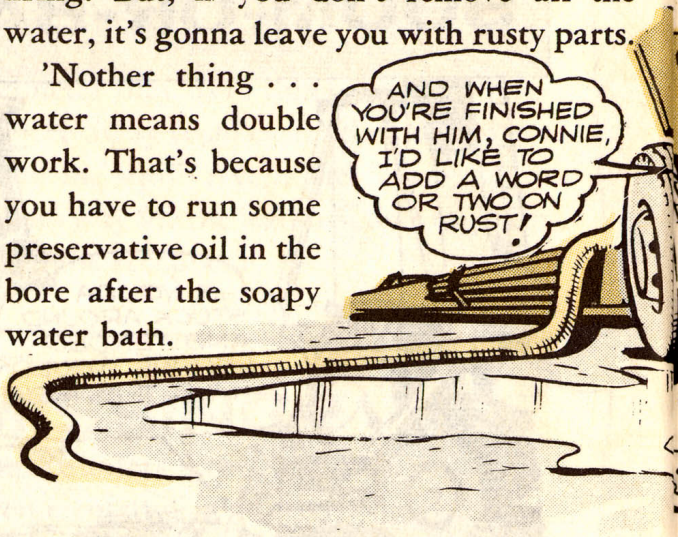


## USE BOR

Soap and water'll do a good job for you when you wanna clean your fatigues, GI the barracks, or scrub yourself. And you don't have to worry about rust if you don't remove all the stuff.

But, 99 times out of 100, it's no soap when it comes to using soap and water for cleaning bores in small arms and artillery pieces. Sure . . . hot, soapy water will go to work on the deposits left in the bore after firing. But, if you don't remove all the water, it's gonna leave you with rusty parts.

'Nother thing . . . water means double work. That's because you have to run some preservative oil in the bore after the soapy water bath.




Bore cleaner is another story. It does a real cleaning job. And, since it's a pretty good preservative and rust inhibitor, you don't have to worry about swabbing it out and applying oil. It'll give you up to 24 hours of rust-proof protection.

In case your Federal Stock Numbers for the bore cleaner have wandered off . . . the chart to the right will clue you.

If you're ever caught short after firing, go ahead and use hot, soapy water. That's the one time out of 100. But make an extra effort to get all parts dry and oiled. And latch on to the bore cleaner soon's it hits the supply room.

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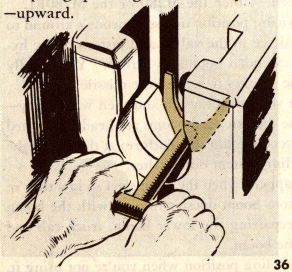

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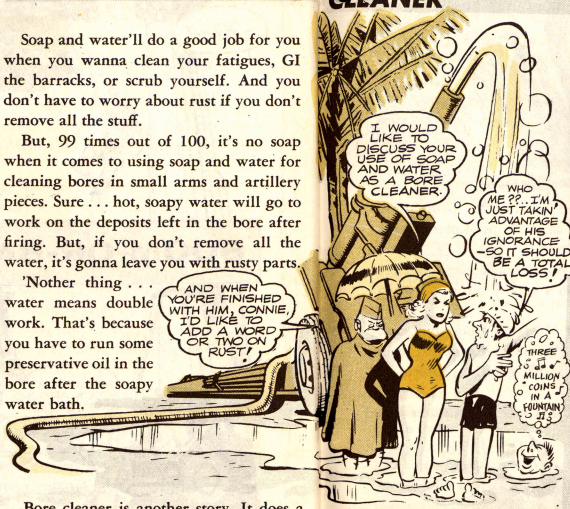


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Cleaning compound, solvent: rifle bore cleaner.

2-oz can
FSN 6850-224-6656

6-oz can
FSN 6850-224-6657

1-qt can
FSN 6850-224-6658

1-gal can
FSN 6850-224-6663

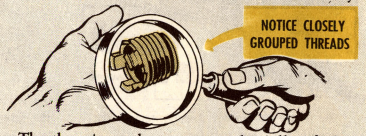


## RIGHT TIGHT

This here now gas piston nut on the .30-cal carbine is still taking a beating 'cause it's not treated right.

Either of two guys can remove it—the armorer-artificer or you, with the armorer-artificer looking over your shoulder. If the M5 removing tool doesn't break the nut loose, send the carbine back to Ordnance.

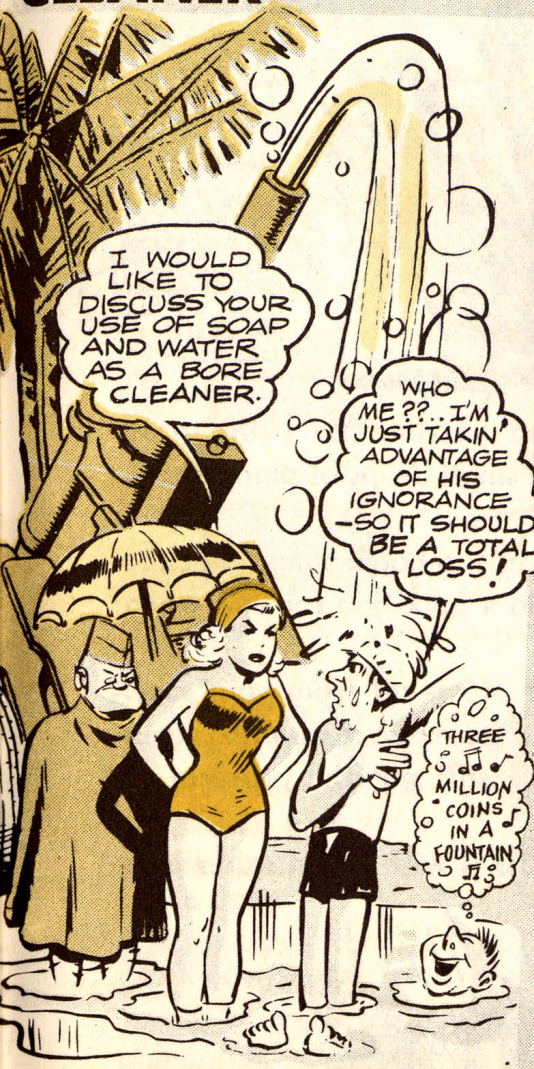
Let's say you do get the nut off. After you get the carbon off the nut and piston with rifle bore cleaner, tell yourself you're gonna go slow and easy in screwing down the nut—and then do it that way.




The threads on the nut are real small and close together, so it's easy to cross 'em with the threads in the piston if you're not careful. And damaged cylinder threads means another job for Ordnance.

Once the threads are grooving right, tighten the nut with the M5 tool. Don't use pressure on the tool . . . the nut should be screwed in a little better'n finger tight. If the nut is too tight, the piston won't operate.

# CLEANER

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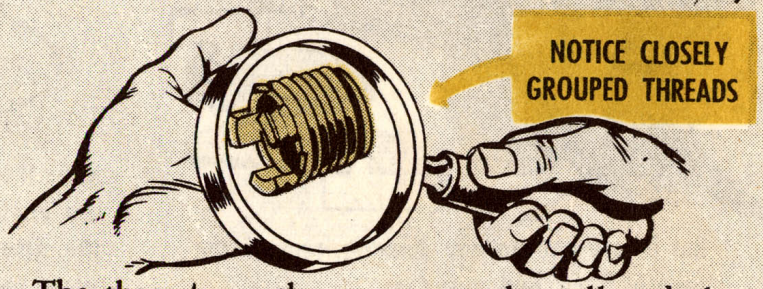


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# CHEMICAL

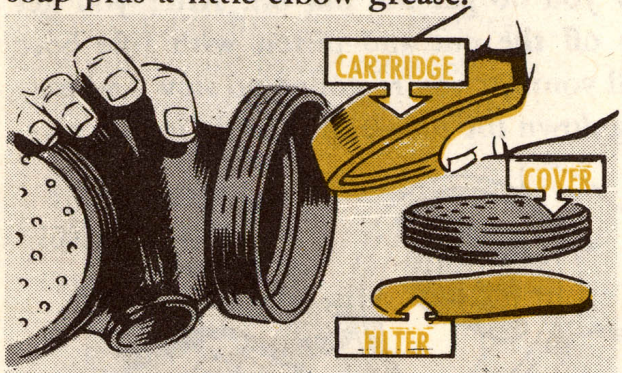
# A Daily Bath

All of you paint sprayers know how you depend on your M5 paint spray respirators to keep you from breathing in vapors and small drops of paint. But—the question is—can your M5 depend upon you?

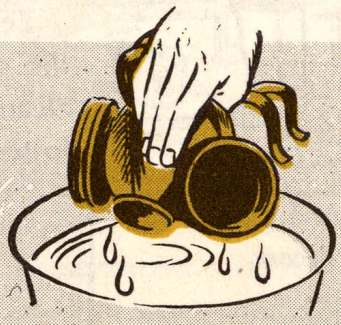
It doesn't take too much time and effort to keep it in top-notch shape. But the time you spend on it pays off in the long run. It'll do a good job for you when you need it.

One of the most common damage-causers to your M5 is oil from your face. 'Course now, not all of you wear creams on your face (to make it easier to clean the paint off), but whether you do or don't you've still got the problem of natural oil from your face.

The best way to take that face oil off your respirator is with warm water plus soap plus a little elbow grease.




But before you do any dunking, remove the aerosol filters and cartridges.

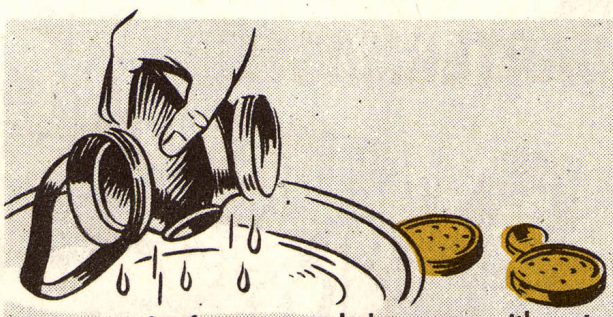


Rinse the facepieces with water and then dry 'em at room temperature. **Don't put the filters and cartridges back until your respirator is thoroughly dry.**

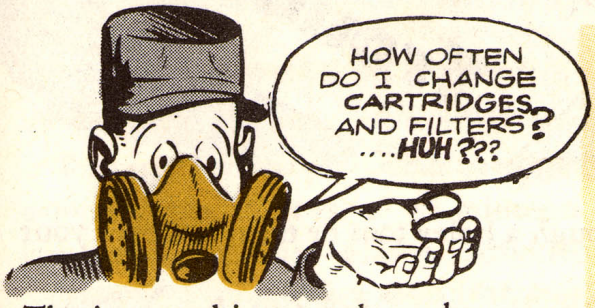
You'll want to clean the paint off your M5 before you give it the soap and water treatment.

The easiest way to do this is with Thinner, Paint, Mineral Spirits (FSN 8010-242-2086 will get you five gallons from the Engineers).

While you're using the thinner, you might just as well clean the receptacle covers.



You rinse the facepiece and the covers with water and dry them before you use them again.

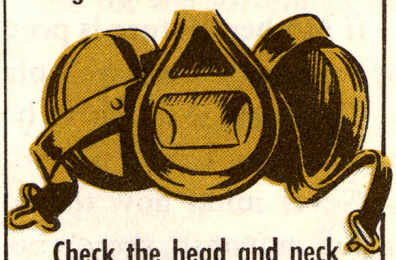



That's something you learn by usage.

It'll depend on how long you use the cartridges and how often. If you can smell paint while you're wearing your M5, it's time for a change.

And your aerosol filter—change it at least once a day. But if you find that you're having trouble breathing while wearing your M5—change filters more often.

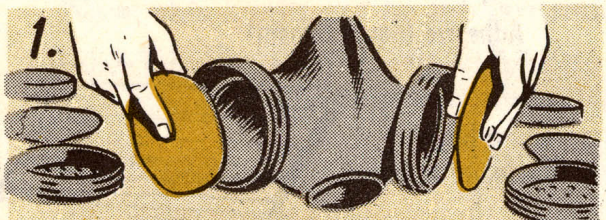
Check both the inhalation valves and the exhalation valve and replace them if they're not in good working condition.



Check the head and neck straps and if they don't have much life left, replace 'em with new ones.

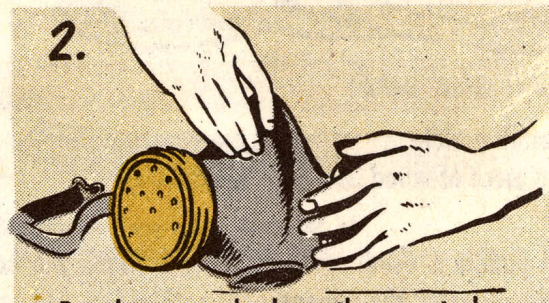
So now you've got your respirator looking like it's spanking new. Before you use it, better run a leakage test on it. Here's how you do it:

1.



Take out the cartridges and the filters. Put the two fiberboard disks in the air purifier units over the gaskets.

2.



Put the covers back on the receptacles

3.

Then fit the respirator to your face just as if you were going to use it. Now try to breathe in.

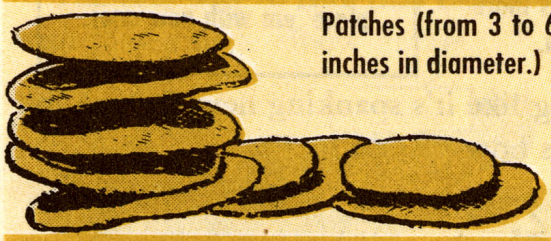
4. If you can draw air into the facepiece, you'd better readjust it to your face—might be the straps need to be shortened.
If it's OK, take out the disks and replace the aerosol filters and cartridges in the receptacles, and she's ready for use.

If Mother Nature is peepin' at you through a holey tent or tarp, preserve your privacy with some well-placed patches.

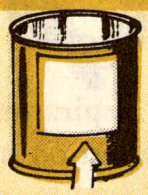
The damage might've been done when the canvas was stashed away into storage, or even (could be) while you were pitching the tent or emplacing the tarp.

Never mind how the harm came along, though. If the rip is less than 4¾ inches in length, there's no need to sweat or get wet.

***The two big items needed for making repairs are:***



Patches (from 3 to 6¼ inches in diameter.)

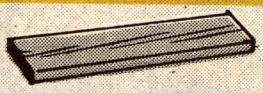


Adhesive (liquid cement)

YOUR SUPPLY SERGEANT SHOULD HAVE THE STUFF ON HAND.

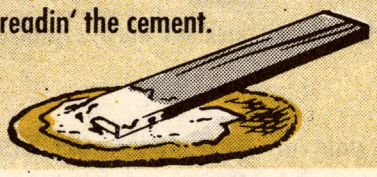
***You'll also need:***

A small paddle or a piece of wood...



and a larger flat piece of board.

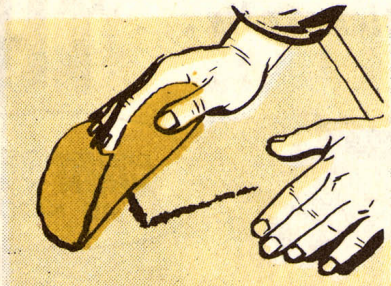
The paddle is used when spreadin' the cement.



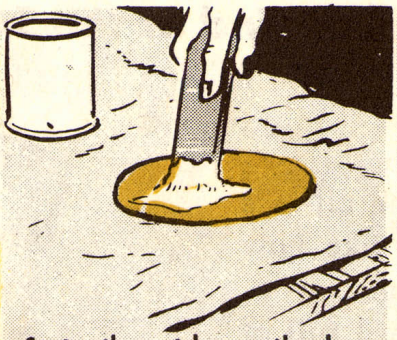
Slide the board under the canvas to provide a solid backing.

Applying the patch is a one-GI job if the work can be done on the ground or a bench. If the canvas is pitched, though, ask somebody to step inside and hold the board against the damaged area.

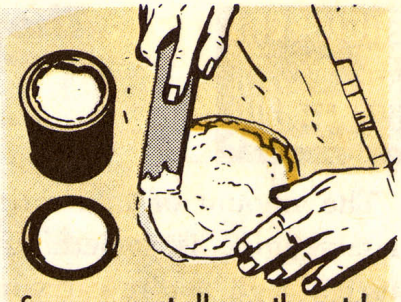
Tell him to relax, 'cause the patch job takes about five minutes actual working time.



Pick the patch that fits, as long as it **overlaps** the ripped area by about ¾-in.
Clean the torn spot with a stiff brush.



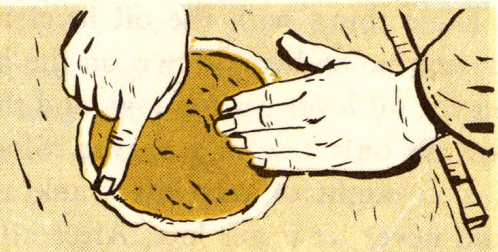
Center the patch over the damage. While holding it in place, swab on the cement. Use the wooden paddle or stick you "requisitioned" for this.



Smear cement all over the patch and even over the edge so some of the stickum ends up on the canvas. When you lift the patch, there'll be a bullseye showing. Fill it with cement.

Rest up. Tell the guy inside to unlax his muscles. Chew out whoever caused the canvas to rip. Wait about 15 minutes. That's enough time for the solvent in the cement to evaporate—and the adhesive to partially set.

Put a second coat on both the patch and spot to be patched. Press the patch in place while that second coat's still wet.
Flatten out any bubbles under the patch for a smooth job.

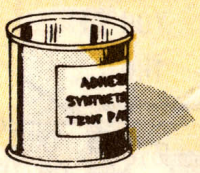


Finish up by sealing the edge of the patch with your fingertip. And give the cement 24 hours to set. Avoid moving the canvas in the meantime.

Now, this might not be the last time you'll need a quick patch job. There's many a way that canvas can catch a tear. Your supply sergeant can lay in a supply of patches. This will help him when requisitioning:

The cement comes in two sizes. It's called:

Adhesive, synthetic-rubber, liquid, tent patching.



1-pt can FSN 8040-266-0850.

1-gal can FSN 8040-275-8100.

**PATCH. TENT, COTTON DUCK. ISSUED IN UNITS OF ONE.**

| Patch No. | Diameter or Length of hole or rip (inches) | Diameter of Patch (inches) | Federal Stock No. |
|---|---|---|---|
| 1 | 1½ | 3 | 8340-241-8187 |
| 2 | 2⅞ | 4⅜ | 8340-241-8188 |
| 3 | 4¾ | 6¼ | 8340-241-8189 |

If that rip is bigger than 4¾ inches, forget about patching. The canvas'll need major surgery, or replacement. Better send it to your supporting maintenance activity.

## The Oily End of the Stick Tells . . . THE

The amount of lubricating oil in a diesel engine is something like how much dough you're carrying.

With the old wallet stuffed full of greenbacks — like on payday — a guy gets all choked up and anxious to spread the scratch around.

And those few rough days before the eagle drops its load . . when the moths in your wallet are lonesome . . . you just can't operate at all.

It's best to have a greenback balance in your wallet that'll keep you operating the right way all the time.

Same thing with the oil level in a diesel engine. Too much oil chokes up the engine and cuts down on the breathing space. Not enough is much worse. Let the oil level get too low, and the metal parts of the engine'll get chewed up like the only tree in a beaver colony.

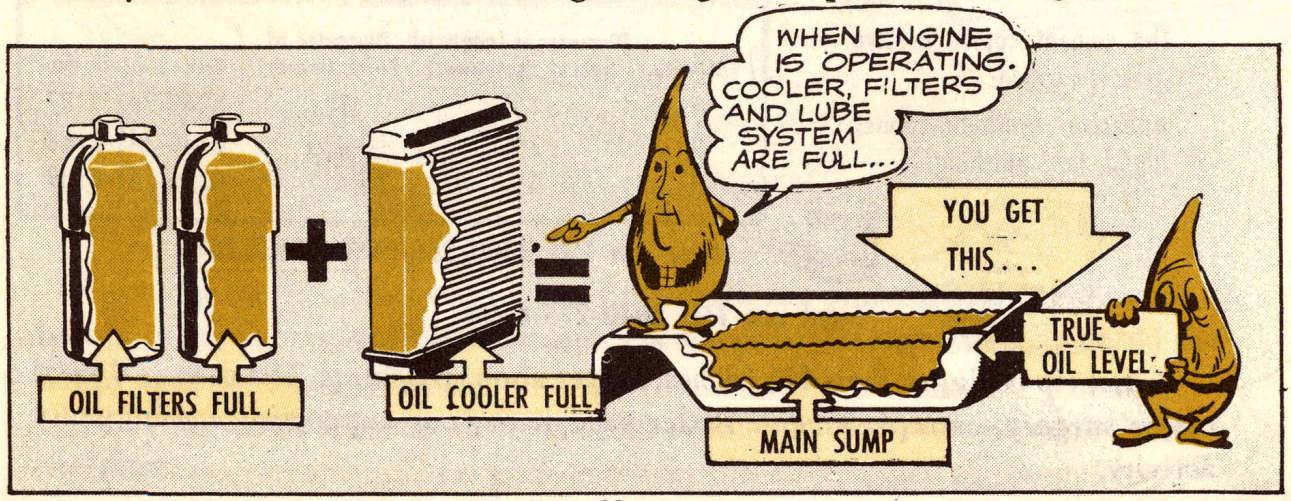
You ought to keep the crankcase oil level at the FULL mark at all times. And never let it get low. After all, you're supposed to take a dipstick reading at least three times a day — before, during and after operation.

## WHEN TO READ A DIPSTICK

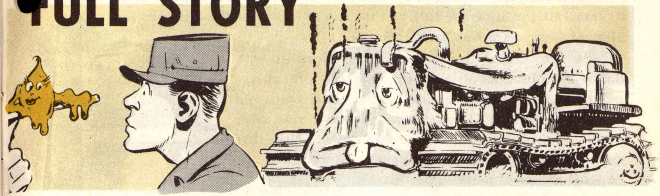
Lots of guys have the wrong idea that you can get an **exact** reading on a diesel engine dipstick whether the engine's stopped or running. Not so.

**Unless directions on the dipstick tell you otherwise,** you get a true reading on a diesel dipstick **only with the engine running at low idle.**

Why? The cooler and filters on a diesel engine hold oil. So not all of the oil is always in the crankcase and lubing moving metal parts of the engine. The



## The Oily End of the Stick Tells . . . THE FULL STORY



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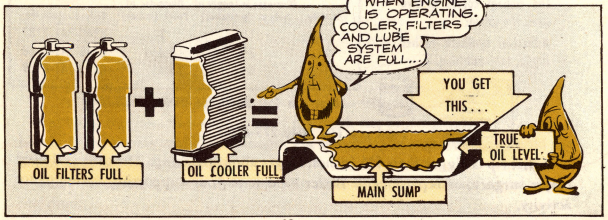
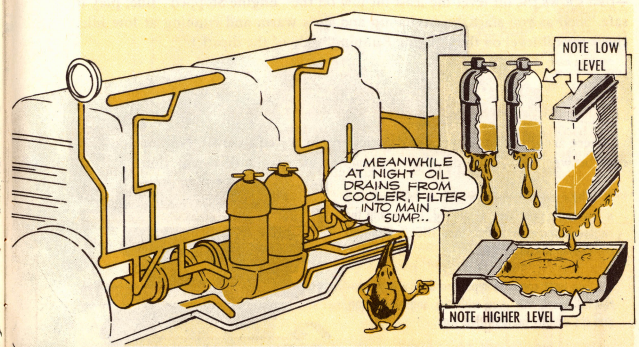
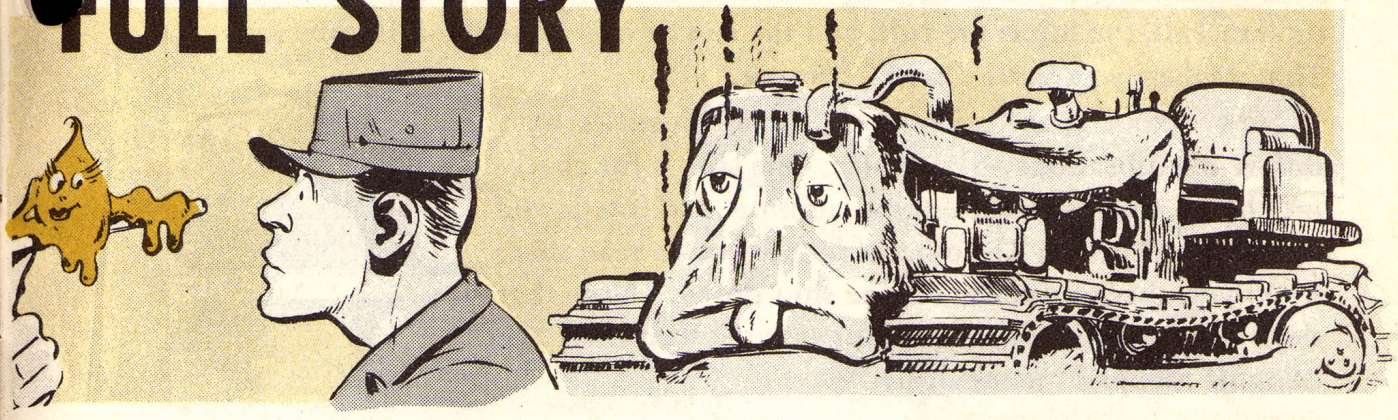



OK. So you shut the rig down overnight. Next morning, you take a dipstick reading before operation, like the TB says. What happened while you were in the sack? Some of the "extra" oil from the cooler and filters ran down into the crankcase. So your before operation check—with the engine shut down—will give you a dipstick reading **above** the full mark on the dipstick . . . if you have the right amount of oil in the crankcase.




That's where the "true" reading comes in. The amount of oil that drains back into the crankcase from the cooler and filters depends on how old and how tight an engine is. A different amount would drain down on just about every engine. So your engine-shut-down reading on different engines would vary.

# FULL STORY



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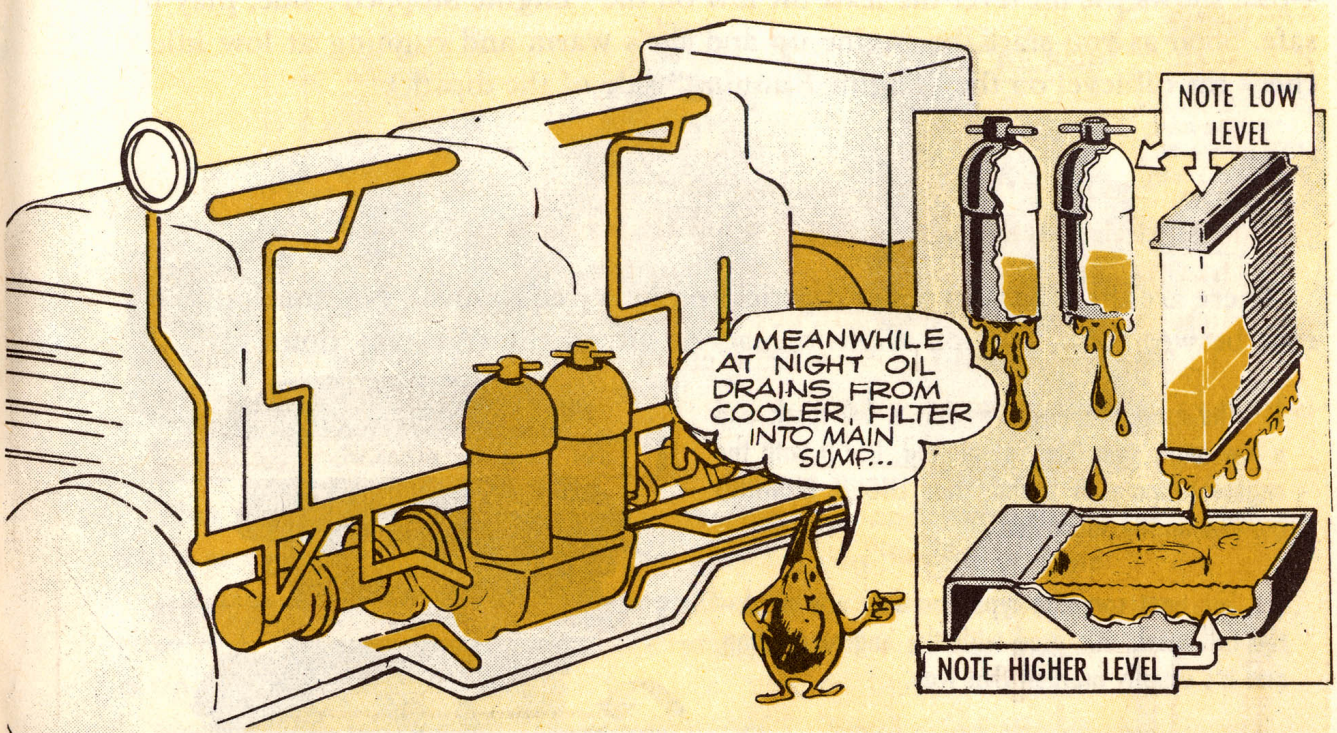


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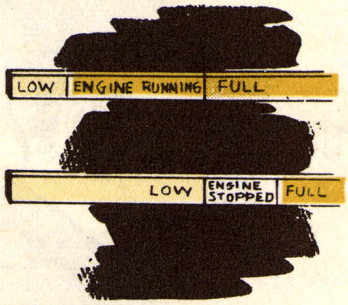
With the engine running at low idle, the oil's where it's supposed to be. The cooler's full, the filters are full, and the rest of it is lubing and in the crankcase. That's when you get a "true" reading.

Now, about that "otherwise." Some dipsticks have different calibrations on each side. One side is for checking the oil level with the engine running, and it tells you that on the dipstick. The other side tells you to read there when you check with the engine shut down. (Note that the "Engine Running" markings are lower than the "Engine Stopped" markings.)



But even with this type of dipstick, you'll be safer if you go by the "Engine Running" reading. If you get a before-operation reading—with the engine down—that shows the oil level the least bit low on the "Engine Stopped" side, play it safe. Soon as you start the engine up and she's warm and running at low idle, check the oil level on the "Engine Running" side of the dipstick.

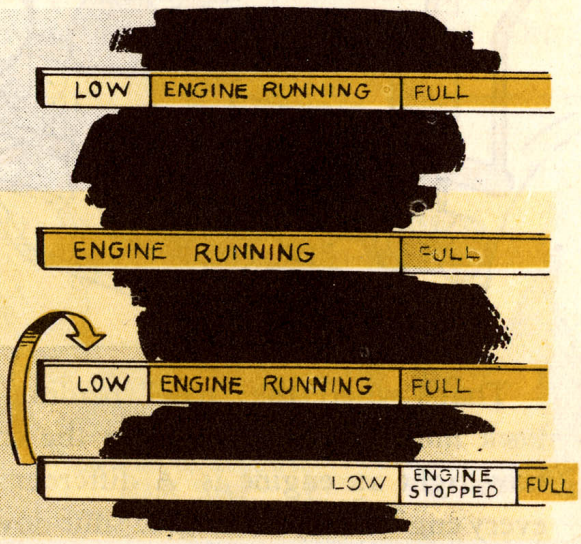
## DIFFERENT DIPSTICKS

There are three basic types of dipsticks on heavy equipment. Not much difference between 'em, but you might run across any of the types any time.

**1.** The most common type has a full mark and a low mark, just like on your car. Use it with the engine running. It usually has ENGINE RUNNING marked on the same side.

**2.** The next common type has only one mark—the full mark. It's used with the engine running, and it's usually marked that way.

**3.** The third type has a full mark and a low mark on each side of the dipstick. It has one side marked ENGINE RUNNING and the other marked ENGINE STOPPED.

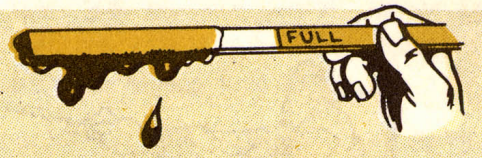


Naturally, you should always have the oil level at the full mark on any kind of dipstick. That's why the full mark is there.

How far below the full mark can you let the oil level get and still operate? Doing the daily checks listed in your pubs and keeping your trip ticket up to snuff will save you from making that decision.

On dipsticks that have both the full and low mark, it's easy. You should never let the oil level get below the dipstick low mark.

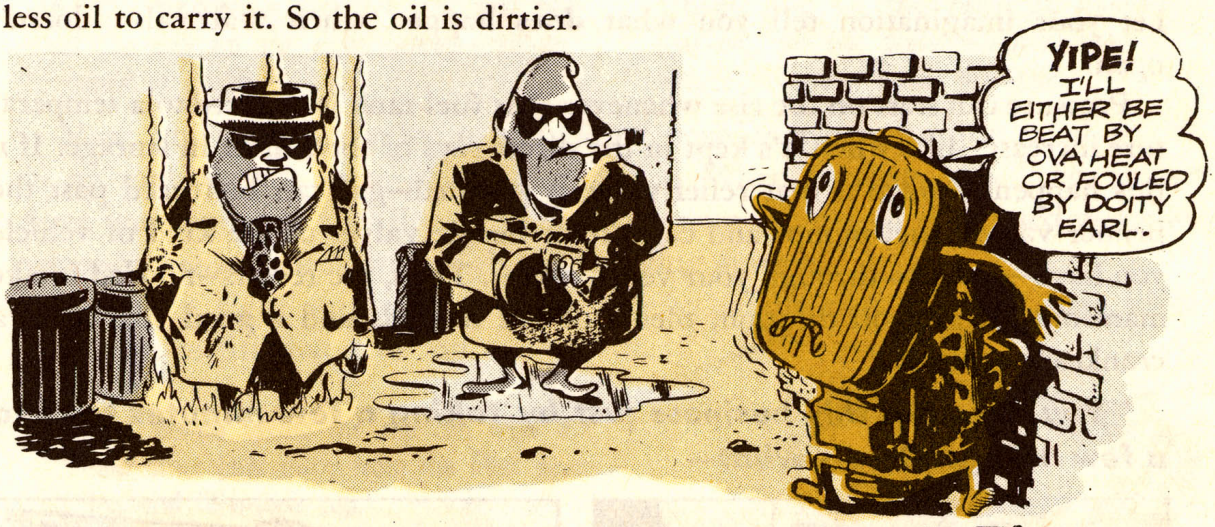
**Here's a general rule for those dipsticks that have only a full mark: When the oil level gets from 1 to 1½ inches below the full mark, your oil level is low.**




That goes double if your rig is splash-lubricated. Let the oil level get too low to get splashed, and you're in trouble.

When it comes to pressurized lubrication systems, some of the old mechanics will give with the arguments. They'll say that no matter how much or how little oil there is in the crankcase, the pump keeps it circulating.

That's right, **but.** The lower the oil level gets — meaning the less amount of oil you have to lubricate the engine — the more it gets used. The oil and the engine get hot. You've still got the same amount of dirt in the engine, but less oil to carry it. So the oil is dirtier.




That rough-tough combination — overheating and extra-dirty oil — chews away at an engine if you operate that way for any length of time.

And speaking of pressure . . . remember to cock an eye at the oil pressure gage now and then while you're operating. Never run her unless the pressure is up.

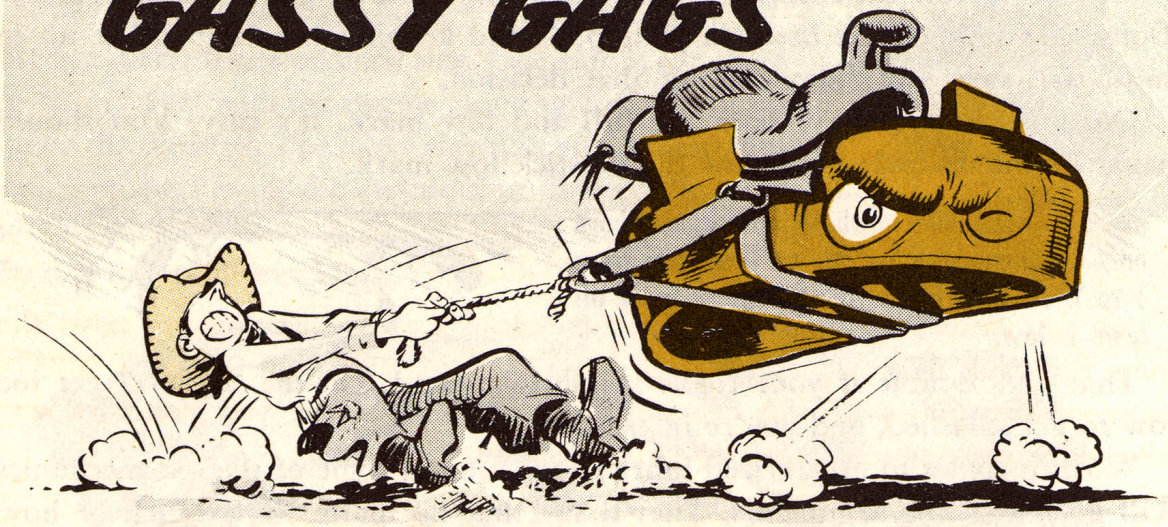
So have a little extra care when it comes to lubricating the engine on your rig, huh?

Follow the TM and LO to get the right oil for it, and put in the right amount. Change the oil when the TM tells you.

And last but most important: Don't let the oil level get too low.

*How To Keep It Saddled—*

# GASSY GAGS

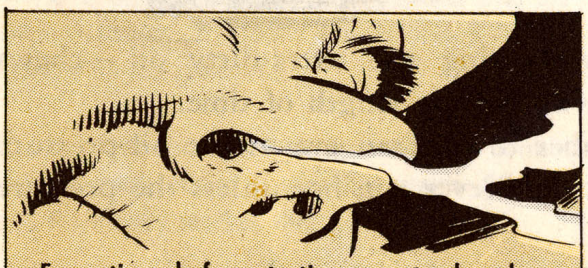


Just because you have a relief valve in the tank filler caps on your pressurized fuel system trucks, it doesn't pay to get too cocksure.

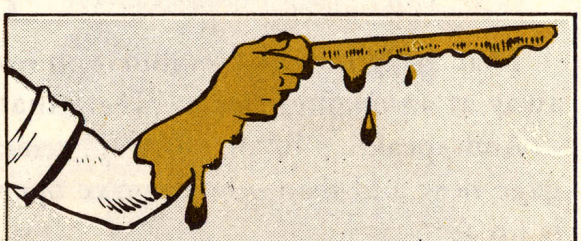
Sure—that valve is set to open up at a maximum pressure of 4½ PSI. But, how many times has it let you down because it's been stuck by corrosion? Let your imagination tell you what **does** happen when that valve doesn't open.

Pressure can start on the rise whenever that fuel tank is exposed to a temperature increase—like when it's kept in the direct rays of the sun or in storage. If'n this happens—and if'n that relief valve is kaputed—gas can be forced past the primer valves, fuel pumps and carburetor needle valves of the kind of vehicle you have—and also through your vent systems. Then, the results—flooded intake manifolds, engine oil dilution, plenty of fire hazards and a good chance of a crankcase explosion.

***You can stop this business just by taking a few minutes to check a few things. Here's what—***



Every time, before starting your truck—when you check the oil level gage during the before-operation service – give the thing a sniff. If you smell gasoline, there's a good chance you have crankcase oil dilution.



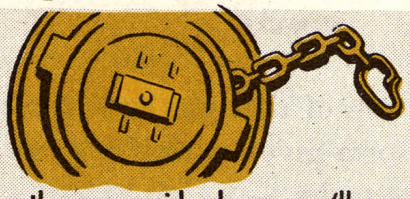
Another tip-off to this ulcerating nemisis is a too-high oil level on the dipstick. If you spot either of these, change the oil before starting the engine.

To guard against the chance of any pressure build-up brought on by the relief valve kaputing, always keep the fuel-tank cap in the semi-locked position—

except during fording operations or when there's a chance of vapor lock coming on.

In other words, keep that cap loose enough so any pressure that may build up will come p-h-i-z-z-i-n-g out. No worry about that cap coming loose and falling off—friction will hold it in place.

As you know, the G744-series 5-ton trucks are all supposed to have that new fuel-tank filler-cap (Ord Stock No. G744-8333722) on 'em—TB 9-837-8 says so. You play with this cap a little different than the way you play with the older caps on the other M-series vehicles.



If you turn the cap upside down, you'll see a little thingamajig you can play with to set the cap on the right setting – either opened or closed.

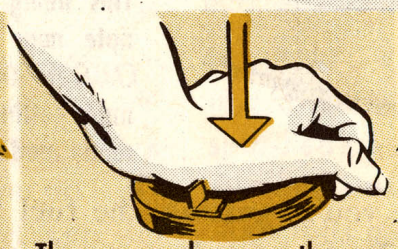
When you're operating under normal conditions, you set the valve on opened position. This lets pressure relieve itself if there's a buildup inside the tank.

Now, you turn the valve to the closed position when fording or if you're in an awfully hot area—like in the desert. When fording, this keeps water from entering your fuel lines. In hot areas, with the cap in the closed position, vapor-lock has a heckuva tough time getting started.

There's a right way and a wrong way to handle that gas tank area when you have to fill that tank up.

First, before taking the cap off, wipe dirt and other junk away from the filler opening and filler-pipe cap.

If, by some chance, someone tightened that cap up all the way, remove it slow—s-l-o-w. Turn it counterclockwise until you feel the stop.

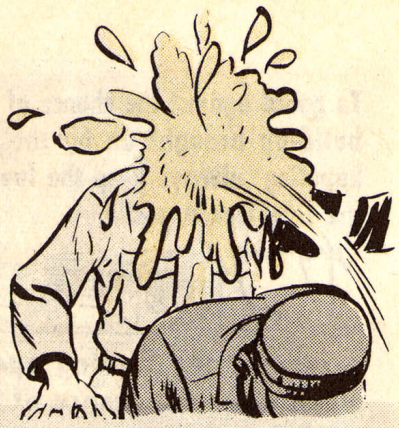


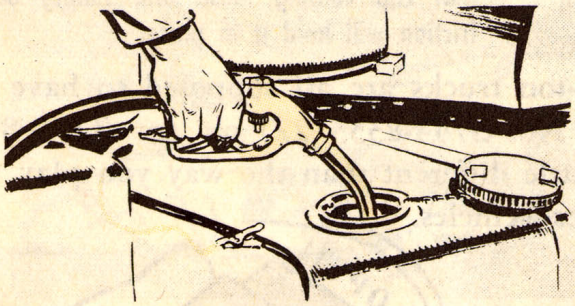
Then, press down on the cap and let the cap pressure-plate prongs pass under the filler-pipe neck-ramp projections.

After the pressure is gone – after the p-h-i-z-z-i-n-g has stopped—give that cap a complete turn and take it off.

If you don't do it this way, there's a good chance you'll get a shower of gas. If your cap has been kept in the right position—secured to the first stop so the pressure can escape all the time—all you have to do is just take it off.

Be sure that filler hose nozzle or the nozzle on the gas container is clean before you start pouring gas in.



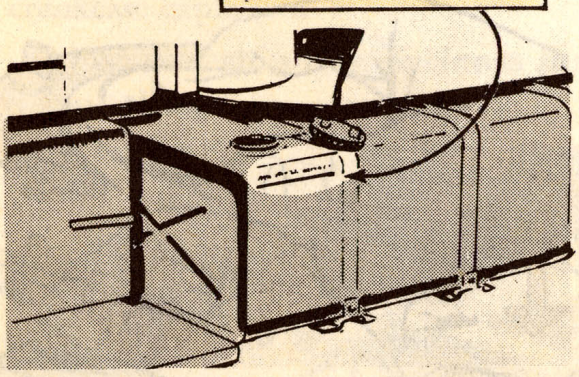


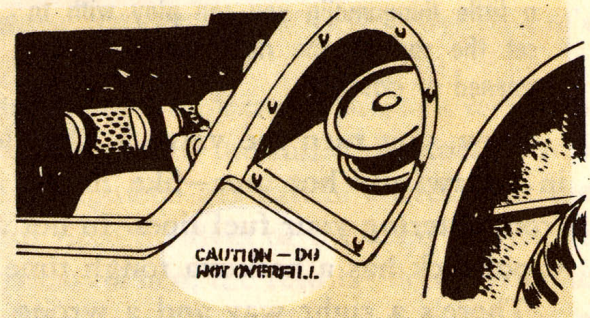
A most important point is to make sure the nozzle is grounded against the vehicle's filler neck while filling to get rid of any static electricity that may have been generated, waiting for the chance to cause fireworks.

If you're filling a truck, stop when the top of that gas level comes within 2 inches below the top of the fuel tank. To sorta give yourself a guide, it may be a good idea to paint some warning on those tanks.

On fuel tanks where the tank is in full view (like on your 2½-ton and 5-ton trucks), measure down 2 inches from the top of the tank and stencil in a ¼x8-in line. Then, on top of this line, stencil in this note in 1-in letters:

CAUTION – DO NOT FILL ABOVE THIS LINE.



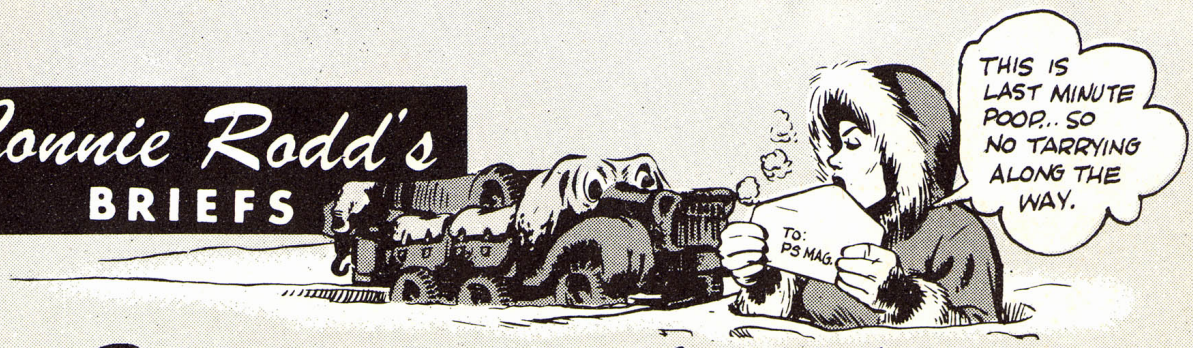



On fuel tanks where the tank isn't in full view (like on your Jeeps and ¾-ton trucks), you wouldn't be able to see any guide line. This being the case, you can stencil this note near the filler pipe in 1-in letter CAUTION—DO NOT OVERFILL. This way, th man getting your truck next will have ready-made for him.

If it's a tracked vehicle you're gassing, the fuel level has to be kept below the top of the fuel tank. To find out how much below, check your TM—it'll tell you.

They're a lot of older caps in the field that don't have this note on it—"PRESSURIZED OPEN SLOWLY." If you have one of these babies, stencil these words on the cap or on the fuel tank near the filler pipe—immejiately.

# Connie Rodd's BRIEFS




## Real deal

No need for armorer-artificers to lose spare parts and tools for the .50-cal machine gun. Not when they can get a spare parts cabinet under FSN 7125-330-0130.

## Send it back

Nike-Ajax fire control men, hear this. You don't have any use for the spline wrench set you were issued. It's part of a tool set aimed at M33 FCS guys. So . . . fill out a turn-in slip and send the spline wrench set back.

## Gotta brass pin?

Just because that winch shear pin (Ord Stock No. G741-7373760) on your G741 ¾-ton truck is brass is no reason to throw it away and beg for an aluminum pin. True, all the other winches for the M-series vehicles take an aluminum pin—but **not** the ¾ ton. The right pin for that thing is made of—BRASS.

## No brushoff

Relax, man. There just isn't any kind of chamber-cleaning brush to use with the M10 cleaning rod when you're working on your M1 rifle. Whatcha do is slip the rod through the barrel until the slotted end shows up in the receiver. Run a couple of patches through the slot, soak 'em with rifle bore-cleaner, pull the swabs up into the chamber and twist away on the rod.

## Mortar brush

Need a bore brush for your 4.2 in mortar? You can now get it by using this information: Brush, bore, assembly, FSN 1015-508-2588, Ord Stock No. A085-7309256.

## B-u-r-p

No—in this case, you don't use it to get relief from indigestion. Instead, it's used for a different cleaning purpose—to wipe those acid salts off the tops of your batteries. Talking about Sodium Bicarbonate, Technical, which you can now have in ample supply. Figure out your needs—you can order the 1-lb bag by using FSN 6810-264-6618, or the 100-lb bag by using FSN 6810-297-0092. To get your burp-soda, just see your local Chemical property officer.

## Safeguard

Every time you look at your G744-series 5-ton truck's batteries, do you find 'em coated with mud and other forms of contamination? Could be they're getting spattered by water and mud being splashed up through the opening under the right side of the front fender as the truck rolls along. If you're in this boat, get your Ordnance outfit to put MWO Ord G744-W29 (25 Jan 57) on your truck. It puts a splash guard on that battery compartment to keep the stuff off your batteries.

# READ
# THE FINE PRINT

**Unusual weather, Terrain and Operation call for Special Care over and above what your Lube Order calls for.**

**ADAPT YOUR LO'S TO YOUR CONDITIONS**